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WE are requested to publish the following resolution for the information of members of the Illinois State Association of Architects:

Resolved, That it shall be considered unprofessional conduct for a member of this association to allow anyone in his employ to do work in his own name as an architect, and this shall be construed as meaning all architectural work done by employés, either during or outside office hours shall be done in the name of the firm, and the compensation for said work shall be paid to said architect or firm. If any member of the association shall violate the above resolution it shall be considered sufficient cause for his expulsion from the association. Any case occurring under this rule shall come before the Executive Committee, whose action shall be final as provided in cases of discipline.

The resolution was received and will be discussed at the next regular meeting, when every member of the association is particularly requested to be present.

WE devote the illustration pages in this edition entirely to the publishing of drawings submitted in competition for a soldiers' and sailors' monument for the State of Indiana. The accepted design has not been published, and we have secured this special privilege from the board of commissioners, and, by agreement, have copyrighted the design, so that it will still remain within their exclusive control. Although we do not feel that an apology is needed for this or anything else we may see fit to do, a few of the reasons why we have gone to the large amount of expense and labor involved to accomplish the publication and illustration of this competition in so complete a form may be given. In these days of irregular, unprofessional competitions, when even men of standing in their profession are too often found enrolled among those who submit plans in the ordinary county court house "lottery, with no premium" schemes, when letters regarding them are received daily from architects calling for their condemnation, we are desirous of showing that competitions if they must be at all can be managed with honor to all connected with them. Such an one this competition has been. Again, the best architects of the country were invited to compete, and the conditions being such as would insure them honorable treatment they complied. The illustrations given will, therefore, show what the best architectural talent in the United States can do in the year 1888 in the way of monument designing.

BRUNO SCHMITZ, architect, of Berlin, Prussia, was found to be the successful competitor, and it may be said that his design was the unanimous choice of the experts employed, and until after the final ballot was taken it was not even known that the design was from a foreign country. Percy G. Stone, architect, of London, England, was the unanimous choice for second place, and though the time was too short for the commission to be authorized by him to allow us to publish the drawing, it is in design well worth the place accorded it. Whatever may be the verdict of the architectural profession when they compare the drawings, it will be granted that Mr. Schmitz is a designer of great ability and well drilled in the alphabet of his profession. However, it may not be owing so much to this as to a greater familiarity with monument designing than the great architects of the United States that has led to his success. But in this we are not disposed to belittle in any way the honors he has so fairly won. He has conferred the greatest benefit possible upon the profession if a result is the awakening of a spirit of rivalry that will lead to further study, and if the building of this colossal monument will induce the same movement in other states under a similar form of competition.

IN no one branch of art or architecture are we so deficient as in that of great monuments. This may be that we, as a nation, are too young to feel the need of a stone-marked

sepulcher of buried hopes or buried glory. Living in the present, and looking to the future, we know no past, or if we do, it is only with the thought that the future will bring time for reflection, and in the future the monuments to our past will be built. Great architectural problems have arisen and American architects, with an adaptability that seems native, have met them. From them have evolved not so much a new style, but new methods, by which construction has become lighter, the space occupied more available for use, and such problems as that of the admission of light, the laying of isolated foundations and the erection of movable partitions. All of these are found in connection with the modern office building, of itself an innovation, and simply filling a demand with no precedent to follow, and no *motif* other than that of expediency to direct.

IN the United States the government competition is invariably of a character that architects of any professional standing can hardly enter with safety, and always with a surety of loss. For it is the best lobbiest who secures the prize in the end, and though he may have a good design and the ability to construct a creditable building, it is his influence as a politician, and not his ability as an architect, which wins. Under this condition of things the best architects do not compete, and those who have a professional name to make and a fortune to acquire, enter them only so far as they feel some hope of success, and leave them when other work brings more lucrative occupation. On the other hand, in Europe, especially in France and Germany, the conditions are vastly different. They have a past to commemorate and an accumulated wealth to invest, and the architect works for glory, being assured when he competes for a government structure that his chances are all based upon his ability to design.

WE do not despair of seeing a like and even better condition of things in this country. A few such successful competitions as this will have a vast influence. From the present crude conditions will arise government schools for theoretical teaching. State laws will be passed making examination and licensing obligatory, the national government will abolish the present system and adopt one by which the services of none but the best architects will be employed upon government work. A new generation will come with advanced ideas upon art, and while a new style will be a matter of formation for generations, and its perfection only to be found in the decadence of the nation, still each bright mind in the profession will seek to better that which exists, and while striving always toward utility, will violate no principle of architectural art.

CHICAGO has recently been the center of probably the last strike of any considerable proportions that will occur in this country for the next ten years. This strike was inaugurated by those members of the Brotherhood of Locomotive Engineers employed on the Chicago, Burlington and Quincy railway system, in conjunction with the firemen, and the fight being subsequently taken up by the switchmen on the other roads, for a short time it looked as though the roads throughout the entire West, if not the entire country, would become involved. The strike has again narrowed down to the road upon which it first started, and through the employment of other engineers and firemen business has been successfully resumed. The organization of railway engineers has for a number of years been considered the strongest as well as the most conservative labor organization in this country; but, to all appearances, this strike was ordered upon no more just reason than that given by many of the most radical and ignorant bodies of employés on similar occasions.

THE defeat of this organization will have a strong influence in advancing the belief already shared by the majority of workmen, that a strike is simply a court of last resort, even then its wisdom being questionable. In fact, the feeling has become general that, to use a slang phrase, strikes are "a chestnut." This method of trying to right real or fancied wrongs has become "old" and worn out, and the agitator is fast finding himself without an occupation. The reason is not wholly found in the ill success which almost every strike has met with in the past three years. It is largely that the idea is imported from countries where the conditions are entirely different; where workmen, until recently, if not now, have been little more than serfs; where no man can rise above his class; where large estates must be kept up no matter what may be the state of trade, and the entire earnings of the workman goes back to his employer in payment of rent and the necessaries of life; where the workman cannot purchase and own his home. These and other reasons have been fruitful of discontent to a greater or less extent in foreign countries. In America none of these conditions exist. The demand for skilled labor is such that good, industrious mechanics can always obtain work at good wages; the employé of today may be the employer of tomorrow, and it is only the improvident who cannot own their homes. Strikes, like epidemics, have raged in this country, but they are no longer to be the fashion. Workmen see that the loss to their employers is their loss, and it has been found that a damage to the employé is also a damage to the employer. Another reason we have for asserting that the day of great strikes is past is the general public sentiment, which demands their abolition, and in this country no evil can exist after it has become so generally harmful as to call down upon it real and unanimous public condemnation.

WHILE stone is commonly regarded as a type of imperishability, and in some localities stone monuments show distinctly the chisel marks made over a thousand years ago, it is well known that in other places serious dilapidations and disintegrations have appeared in stone after exposure to the elements for a comparatively brief period. The parliament houses in London, and the marble roof of Girard College in Philadelphia, are familiar examples. A recent article in the *Meteorological Zeitung* indicates that this deterioration has become more general and serious during the last fifty years than formerly. As might naturally be expected, it is most remarked in cities where the use of fuel generates sulphurous gases; and its ravages are especially destructive to statuary, bas reliefs and other external sculpture usually of marble, and which presents a large amount of exposed surface. The corrosive gases are absorbed by humid vapors in the atmosphere, which are then condensed on the sculpture so as to keep them almost constantly in a weak acid bath. Snow is even more harmful than rain. Being porous it is supposed to act like spongy platinum or charcoal in condensing and concentrating the acid vapors, while it prevents their speedy evaporation. Specimens of freshly-fallen snow gathered simultaneously at Munich and at a suburban village showed an equal trace of sulphuric acid in each; but specimens of the same snow gathered two weeks later showed that the proportion of acid in the city snow had increased nearly eight-fold, while in the other it was unchanged. As wood is largely used for fuel in Munich, *La Semaine des Constructeurs* remarks that analyses in coal burning cities might be expected to yield much more marked results.

Photography in Architecture.*

PART VI.—BY FRED D. FOSS.

THE formula given in the last paper for the ferrous-oxalate developer is the standard formula of photographers when the oxalate developer was in universal use; but this developing medium has been succeeded by the (commonly called) pyro-soda developer, which is more energetic in its action upon the latent image, and allows a greater latitude in the exposure. The pyro-soda developer, in its latest form, is probably one of the best developing mediums yet discovered, excepting, perhaps, the lately-known hydrochinon, of which but little is known at the present time; but the results of the experiments that have been made lead to the belief that it will be the developer of the future. The experiments with hydrochinon have been necessarily limited, and confined to the hands of but few people who take an interest in such matters, and are willing to devote time and means to the advancement of photo-chemical research. Photographers, as a rule—and there is scarcely an exception—do not take kindly to anything new, and are not willing to experiment for the good of themselves or others, preferring to have others do the preliminary work, and then, if a success is achieved, they are willing to, perhaps, adopt "something new;" but they (the photographers) are hard to drive out of the beaten track of old fogyism (?), claiming "the developer we are now using is good enough for anyone's use." Perhaps it is; perhaps it is good enough for their purpose at the present time; but the day is not far distant when even the ordinary—very ordinary—tintype artist will strive to do better work. It is a remarkable fact, but nevertheless true, that the great majority of good devices and formulas now in use by the profession have been discovered and devised by *the amateur*. The above remarks may seem superfluous to a casual reader; but believing these articles may be read by some who are interested in photography for photography's sake, they have been used as an interlude to relieve my mind of a little soreness caused by an article in an eastern journal attacking the amateurs and amateur work.

There is a great field for the man or woman who undertakes the study of photography and photographic chemistry, not for the sake of its power of reproducing the beauties of nature, or animated subjects only, but for the knowledge and artistic experience gained; and one important discovery will repay the study of a lifetime, beside the personal satisfaction it gives to the discoverer. Having relieved my mind, to a certain extent, I will now continue with the method of using the oxalate developer. After having made an exposure go into the darkroom—being careful to close the door and observe that all white light is excluded—and mix the developer according to the rule given in the last paper. If, after a minute, no sign of an image makes its appearance, conclude that you have under-exposed the plate, and add about two drams more of the iron solution. Do not get impatient, but give the developer time to act. The addition of the last portion of the iron solution should cause—unless you have very much under-exposed—a slight blackening of the plate on the spots where the light has acted the strongest, i. e., the high lights, and a gradual changing of the entire plate. If this change is gradual and harmonious, do not add any more of the iron solution, but allow the developer to act until the image appears vailed—sunken in—and the reverse or glass side of the negative plainly shows the picture. The negative is then thoroughly washed under the hydrant, allowing the water to flow over it easily, and not with the full strength of the pressure, to remove all the developer that may be in the film, and is then placed in the fixing bath, which consists of:

Hyposulphite of soda	1 ounce.
Water	4 "

(Any quantity can be made by observing the proportions.)

where it is left until all the whiteness of the negative has disappeared. After the total disappearance of this whiteness, allow the negative to remain in the fixing bath a few minutes longer in order to remove any invisible spots that may be lurking around to do future mischief. Next remove the plate from the fixing bath and place it under the hydrant to wash. This washing must be very thoroughly done, as it is quite difficult to remove the hypo from the gelatine film, and if it is not done the negative will fade and a minute crystallization form that will utterly ruin it. One thing should be borne in mind by all who contemplate making their solutions, and that is: any quantity of any solution can be made by observing the proportion of the same and by observing carefully the following tables; a mistake is impossible:

APOTHECARIES' WEIGHT.

20 grains	1 scruple	20 grains.
3 scruples	1 dram	60 "
8 drams	1 ounce	480 "
12 ounces	1 pound	5,760

FLUID.

60 minims	1 fluid dram	60 minims.
8 drams	1 ounce	64 "
20 ounces	1 pint	1,280 "
8 pints	1 gallon	10,240 "

The above weights are those usually adopted in formulas. All chemicals are usually sold by

AVOIRDUPOIS WEIGHT.

27 11-32 grains	1 dram	27 11-32 grains.
16 drams	1 ounce	437½ "
16 ounces	1 pound	7,000 "

NOTE.—An ounce of *metallic* silver contains 480 grains, but an ounce of *nitrate* of silver contains only 437½ grains.

(To be continued.)

Slate.*

BY W. B. LORD, CHICAGO.

THE early history of slate is obscure. I have been able to trace its use only to the thirteenth century, when the quarries of North Wales furnished slate for the roofs of the old historic castles of Conway and Caernarvon, which were erected about 1300 A. D.

The production of a good slate is limited in the British Islands — elsewhere than in Wales — although some quarries in central England and a few localities in Scotland have been worked for many years, but it is rough and heavy, and the amount quarried is limited.

The quarries of Killaloe, in Tipperary, Ireland, are of considerable importance, producing a good quality, but somewhat rough. The possibility of an increased production from these quarries both in quantity and quality is encouraging, for the reason that they are in the proper formation, and with more quarrying promise to produce a slate equal to the Welsh, and thereby relieve the demand, which is greater than can be supplied. In time the Welsh quarries will be about exhausted, and those of Ireland will be called upon to contribute their share of the demand.

Enterprising Americans with an eye to business are taking advantage of the gradual failure of the Welsh quarries, the present obstacles which are retarding the development of those of Ireland, and also of the fact that although it is quarried at many points on the continent—only the local trade can be supplied—are shipping large quantities to foreign countries.

At the end of the twelfth century slate was used in the construction of the castle of Angers, France, from the extensive quarries which are located at that point, this being the oldest quarry and about the first in use on the continent.

The principal slate-producing regions of the United States are Rutland county, Vermont; Washington county, New York; Lehigh, Northampton and York counties, Pennsylvania; New Canton, Virginia; Monson, Maine; and Baraga county, Michigan. Workable deposits are known in other localities, but at present they are inaccessible.

The first quarry in Rutland county, Vermont, was opened about the year 1840, and in Washington county, New York, about 1850. In these two localities are found our red, green and purple slates. The remainder of the localities produce the black and the blue-black. Slate from Lehigh and Northampton counties, Pennsylvania, is known to the trade respectively as the Lehigh and the Bangor. The Lehigh slate is quarried at and in the vicinity of Slatington. Bangor, Pen Argyl and Chapman's produce the bulk of the Bangor slate.

A preference is shown (I suppose on account of price) for the Bangor, and more No. 1, as they call it, is specified than can be supplied for roofing. Through inattention and inability to distinguish the difference, a great deal more of No. 1 Bangor is paid for by the consumer than is used.

The York county, Pennsylvania, quarries produce what is commonly called "The Peach Bottom" slate. They were opened about eighty years ago, which may be stated as about the date of the commencement of the slate industries of the United States. This being undoubtedly the best slate in this country and the demand for it so great, the production is now limited and but little on the market, as the quarries are too deep to profitably work. Near New Canton, Virginia, lies comparatively inexhaustible deposits of most excellent slate, which is fully the equal of the "Peach Bottom." The quarries have been extensively worked for years, and are equipped with all necessary machinery, planers, saws, rubbing beds, etc. The toughness of this slate makes it more expensive to work than the softer varieties, but the extra quality of both roofing and slab slate produced by this quarry will more than repay the small extra cost.

Slate is one of the few mineral products of nature which is particularly adapted by its peculiar formation to a great variety of uses. Its mining and manufacture as an industry of the future is full of bright promise, as its merits become more widely known and appreciated, and the right business tact followed in its introduction.

Slate quarries in well selected localities, conducted by men with adequate capital, and practical knowledge enough to conduct both quarrying and selling, with judgment, is a profitable enterprise. There are different varieties of slate which derive their names from the distinguishing mineral constituent, but none of them have the commercial value of clay slate. They are classified: micaceous, talcose, chlorite and clay slates. The micaceous are blue and gray in color, speckled with minute particles of mica. Its more compact varieties are used for curbing and flagging. The talcose contains a large percentage of the mineral talc (commonly called soapstone), and is used for scythe and hone stones, its color being greenish and having a greasy feel. The chlorite is a brighter green than the talcose, not so greasy feel, and is generally very hard and strong. The true clay slate or slate of commerce is closely allied to other varieties; sometimes the finer passes into chlorite schists, like the green slates, while the coarser passes into sandstone by an increase of quartz and loss of alumina. The pure argillaceous (clay) slates are sometimes converted into hornblende schists. A schist means a redistributed, finer assortment of particles.

In the selection of slate as well as building stones, care and judgment must be exercised, as a vast quantity of worthless material is on the market. True slate or slate of commerce may be defined as a fine grained, compact and exceedingly fissile (readily split) mineral, varying in color from black

*Continued from Vol. XI, No. 3, page 31.

*Paper read before the Chicago Architectural Sketch Club, February 13, 1888.

to dark blue, purple, shades of green, gray and brick red. It has the property of being hard without being brittle, and capable of resisting a pressure of about 20,000 pounds to one cubic inch without crushing, or it may be soft and tough. When free from impurities, it is a non-absorbent of water, and does not disintegrate in the air. It is capable of sustaining a high degree of heat without fusing or cracking and can be readily carved or turned. It is easily worked and takes a smooth finish. By the marbelizing process it is coated in an unlimited variety of colors, imitating marble for mantel work; and hardwood for matching trimmings, decorations, etc., for interior woodwork. The different colors of slate are chiefly due to the various proportions of the compounds of iron in its composition. It is present in ordinary blue slate as protoxide of iron, an excess or lack of which and the absence of peroxide of iron, is the cause of the many different shades of blue. If the slate be of good quality and ring, and the color rich deep blue or black, and of uniform shade, it will not fade and is durable. In the green slates the proportion of protoxide of iron is one-third less than the blue. Traces of phosphoric acid and magnesia in combination with the oxides of iron, produce the green shades. The unfading green has a larger proportion of the peroxide of iron and calcium carbonate, and less of magnesia than the sea-green, and therefore, is a less prominent and more durable color. The sea-green slate makes a good roof, as the quality is generally good, but the color will fade in time to a greyish shade. The purple cannot be relied on for color. The only red slate in the world which has been found practicable to quarry is found in Washington county, New York—although veins have been found in other states. It commands a good price on account of its scarcity, as the veins are thin, few in number, and soon exhausted. There are several shades of red, varying from a dark red to a light pink. The dark and medium color is the most reliable for both color and strength. The pink is apt to be brittle and to fade.

The soft, black slates contain considerable carbonaceous matter and disseminated sulphide of iron in a decomposed state, which will develop into a white efflorescence, and ruin a roof after a short exposure to the elements. For roofing purposes, a careful selection for even color and metallic ring must be made, if a durable job is desired. From the softer deposits of this slate are manufactured our school slates and pencils. The variegated slates are derived from deposits in layers and irregular masses, tinged with differently colored pigments, and afterward changed into slate by natural processes.

Analyses show that the bulk of slate deposits are composed of silica and alumina, and were at one time ordinary clay. Slate does not possess the numberless varieties of color, nor the susceptibility of polish which marble assumes, and therefore on the strength of appearance alone, irrespective of adaptability, marble is very often used, especially for plumber's work, where the use of slate would prove more sensible and lasting, because of its strength, imperviousness to water and fluids generally, and consequent cleanliness. The most important of the properties of slate, and that which gives it its value as a roofing material, is its remarkable cleavage structure, which may be defined as easily splitting, when fresh quarried, in planes parallel to each other. In no product of nature, except mica, is it developed to such a degree, and taken advantage of, as in the manufacture of roofing slates.

Slate is quarried by drilling holes and blasting, taking all possible advantage of slips, joints and floors, or, I might say, natural seams and peculiarity of formation, to displace it without unnecessary breakage, and as the planes of cleavage lie at an angle of from 45° to 60° it cannot be quarried like stone, on a horizontal line, but necessitates considerable judgment and ingenuity to economically loosen the blocks from the bed.

The blocks are then hoisted to the surface by the derricks, put on a truck and run to the slate makers' shanty. The blocks as they come out are very irregular, so one of the splitters' assistants breaks them into sizes suitable for splitting into slates; in length and breadth sufficient for handling, and about two inches in thickness. These blocks are placed in piles on the left hand of the splitter, who is seated on a bench raised a little from the floor. The splitter then takes a block between his knees, and with a wooden mallet, and a broad thin chisel, splits it through the middle, and continues dividing the blocks into equal halves, until they are reduced to the thinness of roofing slate. These thin pieces of slate of irregular sizes are then taken by an assistant and economically cut in a dressing machine to the various sizes in use. The dressing machine is an arrangement of knives which cut the slate somewhat similar to a pair of scissors. In the manufacture, it is put through the various processes without unnecessary delay, because it is more readily worked before the quarry water dries out. In fact, it about loses the property of splitting when free from sap, and this is taken advantage of by using it for building work, such as sills, posts and slabs. Where a flight of iron stairs is desired, no better material for the treads can be found than a good quality of slate, because it will give a firm hold for the foot, and not wear out. A flight of stairs with a slate tread in an exposed and wet situation, if the tread has enough incline to allow the water to run off, will not become slippery, because the slate does not absorb the water. The trimmer or dresser, as the man is called who cuts the slate to size, sorts the slate as he makes them into first and second qualities, and also arranges each size together, ready to be carried and placed on the pile in the yard. Three grades of slate are made, to wit: No. 1, No. 2, and ribbon. No. 1 consists only of what is smooth in texture, uniform in color, straight in grain and free from knots. What lacks these qualities, and are not ribbon, are called No. 2.

A band, from the breadth of a line to an inch or more, is sometimes noticed in a slate. Such slates are called ribbon, and are of little value, because of a difference between the quality of the ribbon and the two sides of it. Considerable skill, judgment and honesty is required in placing slate upon a roof. The slate should be selected, rejecting all seconds and ribbon, and should be laid with the regular required lap for the various sizes, using a sufficient quantity of slating nails to firmly attach them to the roof. If good work is desired, proper results with less inconvenience will be arrived at, if the architect exercises care in his specifications, and demands that they are adhered to, in addition to requiring a time warrant on the work, as is the custom.

For cheap roofing, slats are nailed to the rafters, from two inches to four inches apart, and the slate is laid on these slats. The usual way is to board the rafters, nailing the boards tight, with a space of about one inch between each board, to obviate as far as possible the shrinking and swelling, which loosens the nails and breaks the slate. Then lay the roofing felt over the boards and lay the slate on the felt. If an extra job is required, bed them in cement.

A slate roof is laid by first placing a course on the eaves. All courses above this one must be laid with a lap of more than one-half the length of the slate shingle, or the vertical joints, which are not close, will not be covered. The lap of the slate is more than one-half of its length, so the more lap a course is laid with, the better will be the roof. Manufacturers allow three inches when selling a square of slate, and architects should see that the roof is laid with that amount of lap, as a less one is a considerable gain for the dishonest roofer, which he takes advantage of. A square of slate covers ten square feet, and weighs about six hundred pounds.

Although the original cost of a slate roof will be more than that of other materials in use—if proper care is exercised in selection of material, and honest work is done, it is the cheapest in the long run. Where practical, the larger sized slate should be used, for the reason that only the best rock can be split in the large sizes, and you will be sure of getting good slate. Another advantage in a large slate is that they cost less, as the labor in making them is less, and also the cost of putting them on the roof. For making tiles, slabs, etc., the blocks of slate are first split to about the proper thickness. They are then sawed by band saws, the same as are used in sawing stone, to required sizes and put on a planing machine which is similar to those used in planing iron and stone, except that the cutter is broader. This machine shaves the slate to proper thickness, giving the surface a smooth, level face. The plates of slate are then put on a rubbing bed and rubbed to the required finish.

The rubbing table is a round, flat piece of cast iron, from six to ten feet in diameter, revolving horizontally. The block to be rubbed is placed on the top of this revolving plate, and held in position. Sand is put on this plate, and water run onto it, and the blocks ground to a smooth surface.

In this paper I have collected all available information on the history of slate, localities where found and quarried, its various colors, uses, and methods of quarrying and manufacture, and trust the information will lead to the use of good material, the slight excess in cost of which will amply repay the consumer.

Texas State Association of Architects.

THE third annual meeting of the Texas State Association was held at Houston January 17 and 18.

The convention was called to order by President J. J. Kane, of Fort Worth, who made an able and lengthy address.

Calling attention to the urgent necessity for a renewed effort in the direction of securing the passage of a law governing the practice of architecture in the state, the president said:

> This bill, gentlemen, is a matter of very great importance for the future welfare and standing of the practice of our profession in the state; and it is to be hoped that earnest and vigorous action will be taken by this convention that will not fail to keep this subject alive and before our representatives to enable us at the earliest day to obtain the passage of a bill by the legislature of Texas that will place our profession in the position it rightfully and properly belongs, to enable us to protect our own professional practice and prevent unprofessional practice in our state. The importance of giving this subject our best attention cannot be overestimated in consideration of the future welfare of the practice of architecture in our state.

Mr. Kane spoke strongly in favor of a high standard of character and practice among members of the association, preferring that the number of members should be few rather than admit those unprofessional in their practice or untrained in the profession of architecture. Mr. Kane made an extensive review of American architecture from the buildings erected in New England, Virginia and St. Augustine in early days down to those of the present, showing the speaker to be not only a man of wide observation but with a clear judgment and possessed of a trained knowledge of architecture. Bringing his argument down to the formation of the American Institute of Architects in 1867, and the Western Association of Architects in 1884, Mr. Kane concluded as follows:

> Like the American Institute with its chapters, it soon became evident that state associations must be formed under the same rules and laws as the Western Association, for the purpose of uniting all architects of good standing in the various states in a bond of fellowship, that the practice of all who belonged to the various state associations would practice under a uniform code, same as the Western Association of Architects, and to produce a fraternal feeling of friendship amongst all those who are engaged in the professional practice of architecture. Hence, gentlemen, the organization of the Texas State Association of Architects. May it ever be in the future as it has been in the past two years of its existence—a bond uniting its members in a feeling of fraternal friendship. To you, gentlemen, who represent the association in its youth and infancy, will the honor be due of placing it on a high and honorable plane with its sister state associations by making and enforcing just and honorable rules for the guidance and practice of its members, and to be ever ready to exert our best efforts to elevate the profession to which we belong.

At the conclusion of the president's address, on motion of W. C. Dodson, seconded by Eugene T. Heiner, the thanks of the association were tendered Mr. Kane for his able address, and it was ordered spread upon the minutes and printed.

The secretary, S. A. J. Preston, being in California, W. W. Larmour, of Waco, was appointed secretary *pro tem.*

The executive committee reported the following architects as members of the association:

A. B. Bristol, Cortez Clark, Guy M. Tozer, Albert Ullrich, George W. Stewart, Dallas; A. C. Watson, Austin, and George E. Dickey, Houston.

The report of the treasurer, W. W. Larmour, was read and referred to the auditing committee, who subsequently reported it correct.

The following resolution was presented by E. T. Heiner:

> *Resolved*, That the schedule of charges be so changed that hereafter they shall be as follows: For full professional services (including supervision) five per cent upon the cost of the work, except as for such work as hereinafter otherwise mentioned. For dwellings or resident buildings or all work costing less than $5,000, 7 per cent, divided

as follows: For preliminary studies, 1½ per cent; for preliminary studies, general drawings, specifications, 4 per cent; for preliminary studies, general drawings, specifications and detail drawings, 5 per cent.

The resolution was discussed by architects N. Tobey, E. T. Heiner, W. H. Tyndall, W. W. Larmour, Sam P. Herbert, W. C. Dodson and A. C. Watson.

On motion of W. C. Dodson, the resolution was referred to the executive committee for their consideration, with instructions to report the same back to the convention with such recommendations or alterations or additions as they might deem proper before the final adjournment of the convention.

The convention adjourned to meet the following day at 9:30 A. M.

The convention was again called to order by President Kane, and listened to an interesting paper by N. Tobey on professional practice.

A resolution was presented by E. T. Heiner providing for the appointment of a committee to memorialize the legislature to secure the passage of an act to regulate the practice of architects in the state of Texas.

The resolution was adopted, and a bill was prepared similar to that formulated for the same purpose by the Western Association of Architects.

The following officers were elected for the ensuing year: President, W. C. Dodson, of Waco; first vice-president, James Warrenberger, of San Antonio; second vice-president, Cortez Clark, of Dallas; secretary, W. W. Larmour, of Waco; treasurer, Eugene T. Heiner, of Houston; executive committee, J. J. Kane, of Fort Worth, chairman; N. Tobey, of Dallas; A. O. Watson, of Austin; W. H. Tyndall, Galveston; S. P. Herbert, Waco.

The convention adjourned to meet at Waco the second Tuesday in January, 1889.

Association of Tennessee Architects.

THE Association of Tennessee Architects held its second annual meeting at Nashville on March 20, in the rooms of the Builders' Exchange. The meeting was called to order by President William C. Smith, who made an address of welcome, in which he stated that "If we would raise the tone and status of the profession, we must be better artists and architects ourselves, living for our art, and not altogether for its return in shekels. In our designs truth, honesty and common sense in construction and detail must characterize all our works. We must avoid contention and strife, and do right because it is right; and, withal, every architect must be a man of probity and a gentleman."

At the conclusion of the president's address Secretary Dismukes read his annual report.

George W. Thompson made the following remarks upon imperfect plans placed in the hands of builders for estimates:

Mr. Chairman and Gentlemen of the Convention: At a recent meeting held by the Builders' Exchange in this city, among other interesting subjects brought before the exchange for consideration, was the question of "How to remedy the great injustice done the builders by local architects, by submitting imperfectly, or partially finished plans, and specifications for competition?"

Being present at that meeting, and deeply impressed with the subject and the views expressed by members of the exchange, I have deemed it of sufficient importance to bring it before this convention, and ask your earnest consideration to the grave charges, as they affect not only the local, but our visiting architects, in fact, the entire profession.

The charge of incompetency, or, more properly speaking, delinquency as brought before the exchange, was all couched in courteous language, without vindictiveness, friendly to the architects, some going so far as to declare it was not the architect's fault, but the fault of the owners, who refused to pay a fair commission for his work. Without trying to locate the fault, or discuss as to who is to blame, I pass to the more serious charges made privately by members of the exchange since the meeting, which is, "that some architects purposely submit their plans incomplete for bids, that they can make the details light should a favorite win the job, and heavy if otherwise."

This is certainly a very serious charge and calls for prompt, decisive and radical treatment, as it reflects upon the entire profession. Whether this charge has any foundation in fact, or is the offspring of a disappointment by a defeated contractor, makes no material difference to us, the very fact that this pernicious practice is susceptible of such interpretation, shows that it is wrong, and should be guarded against by every architect who realizes the importance and dignity of his profession, and should there be any who fail to duly appreciate this, we, as an association, should by precept and example, teach them that the professional practice of an architect should be, nay must be, like the wife of Cæsar, above suspicion.

From another view, as a simple question of equity, the architect's work should be thorough and complete. After an examination of plans and specifications by a competent builder, there should be no question in his mind as to how much or how little, or the character of the work required by him. He should feel that he knows the value of the work to a dollar, feel that he can do it properly, and be fairly paid for it. The drawings and specifications should convey this assurance to the builder, verbal information, or explanations by the architect should not be needed, and is improper, misleading, as it conveys different meanings to men of different skill and experience, and if a practical builder has to do more than he estimated through faulty drawings, that builder is cheated, and if he does less, from the same cause, the owner and the losing competitors are cheated, and as a member of the exchange says, it is no uncommon thing for an architect to be damn'd by those who win and by those who lose the job.

From another (and perhaps to some, more effective) point of view, I think the architect should make haste to correct this abuse, at least the resident architect should, for I am satisfied from what I heard at the exchange, should the architects fail to voluntarily correct this abuse, the builders will compel them to.

For my part (if half of what I hear is true), I am surprised that the builders have not taken concerted action in this matter long ago. They certainly have shown much patience and forbearance, and have earned the gratitude of every architect who values the good name of his profession. It certainly would be very humiliating to learn that a professional brother's office was boycotted by the builders, and far more humiliating to know it deserved this, or even more harsh treatment.

It certainly would be much better, if as an association we can stimulate each individual architect to act justly in this matter. To take a higher and broader view of the practice of architecture. To realize the importance, responsibility and dignity of his profession. If we can accomplish this much, it will amply repay for all trouble and expense in organizing this association. The visiting members will not think they have traveled a hundred miles in vain. There will be no threat of boycott by the builders, no complaint by the owners, and no need of builders using details made by other architects as is sometimes done in this city.

Then the architect who has been indifferent to his duty as an architect, will awake to new joys. The study and forethought necessary to carefully delineate his work in all its parts, will teach him to love his vocation as surely as the true man loves his wife.

To the true architect, the work of detailing is a work of love that cannot be entrusted to another hand, as interesting to him in all their developments as the model under the chisel to the sculptor, or Picciola to the prisoner at Fenestrella.

On motion discussion was deferred to the afternoon session. The session then adjourned, and at the invitation of the Nashville architects members were entertained at dinner. At the afternoon session the subject presented by Mr. Thompson was discussed, after which the following officers were elected:

President—James B. Cook, of Memphis; vice-president, P. J. Williamson, Nashville; secretary, Wm. C. Smith, Nashville; treasurer, Mr. T. L. Dismukes, Nashville.

Board of Trustees—James B. Cook, Memphis; William C. Smith, Nashville; J. F. Baumann, Knoxville; A. Delisle, Chattanooga; C. G. Rosenplaenter, Memphis.

Edward G. Frye and William Keiger were elected junior members, and B. J. Hodge and H L. Gibel were elected associate members. After some further business of a general nature, including a vote of thanks to the retiring president, the convention adjourned to meet the third Tuesday in February, 1889, at Memphis. The quarterly meeting will be held the first Tuesday in June next at Nashville.

The Proposed Grant Monument Competition at New York.

THE Board of Directors of the Western Association of Architects has sent the following protest to the Grant Monument Association, of New York, dated March 30, 1888:

To Alonzo B. Cornell, Chairman, and Members of the Executive Committee of the Grant Monument Committee:

GENTLEMEN,—A circular has been received by many architects who are members of the Western Association of Architects, signed by you, and inviting competitive designs for a monument or memorial to be erected in New York over the tomb of General Grant.

In behalf of the Western Association of Architects, we desire to unite with the Architectural League in protesting against some of the terms of your circular. The sections mentioned by the league we deem objectionable, and we are convined that they will prevent many of the best men in the profession from entering the competition.

We send herewith the "code" adopted by the Western Association. This was prepared with the greatest care, and was adopted by the association as a perfectly fair and equitable statement of the methods by which competitions might be so conducted as to be productive of the best results to both the public and the architectural profession.

Respectfully,

SIDNEY SMITH, *President.*
WALTER R. FORBUSH,
J. J. FLANDERS,
C. F. SCHWEINFURTH,
GEORGE B. FERRY,

NORMAND S. PATTON, *Secretary.*

JOHN W. ROOT, *Chairman, Board of Directors.*

The following letter was sent, on March 15, by the secretary of the American Institute of Architects, to the Grant Monument Committee:

To Messrs. Alonzo B. Cornell, Chairman, and Richard T. Greener, Secretary of the Executive Committee of the Grant Monument Association.

GENTLEMEN,—The trustees of the American Institute of Architects feel themselves obliged, in the interest of art and of the success of the project for erecting a monument to General Grant, to respectfully protest against the terms of the competition for said monument, as they are now set forth, and to state their objections to certain sections of the circular in which they are contained, as follows:

SECTION 2. Cost is an element of great value in determining character of design. The amount to be expended is not definitely named, as it should be.

SEC. 4. The eminent experts who are to advise the Association in the selection of designs should be known from the beginning, so that such as have not faith in the judgment of the said experts need not compete.

SECS. 6, 7, 8. All designs in the respective classes of architects and sculptors should be made to one scale and rendered in one manner. No architect should be *at liberty* to submit a model unless all are *required* to do so.

SEC. 13. As the first premium, the successful designer should be employed to execute his design at regular rates. The premiums named are insufficient in numbers and in amounts. No one of standing would willingly sell his design at the prices named or at much higher terms; and moreover, an unexecuted design would be of no use to the association except as a curiosity. All drawings, etc., save the one design adopted should at once be returned to the authors.

SEC. 14. The committee should only ask for a new competition on the recommendation of the expert jury.

SEC. 17. As above stated, the successful designer should, as a matter of course, be employed to carry out his design at regular rates. Competition, as regards rates of compensation would necessarily be demoralizing to the competitors, and possibly to the judgment of the committee.

While it is in accordance with extremely mercantile spirit to endeavor to obtain the maximum of value at the minimum of payment, yet such a principle applied to artistic work has a most depressing effect on talent, fails to call out high ideas and drives eminent practitioners entirely away.

A. J. BLOOR, *Secretary.*

To this letter the following answer was received by Secretary Bloor:

GRANT MONUMENT ASSOCIATION,

No. 146 BROADWAY, NEW YORK CITY, March 20, 1888.

MY DEAR SIR,—I have to acknowledge the receipt of the protest of the American Institute of Architects, addressed to the Chairman of our Executive Committee. I shall take pleasure in having it read at the first meeting of the Committee, and have no doubt it will receive careful attention.

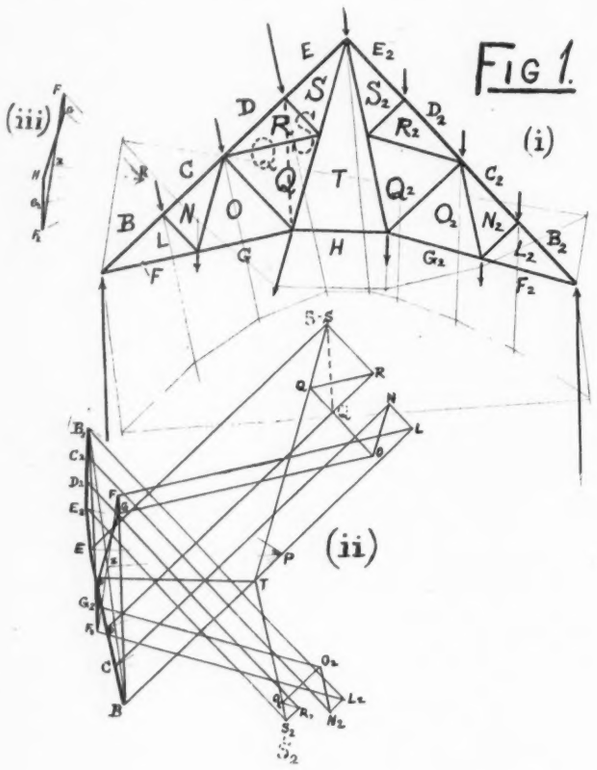
RICHARD T. GREENER, *Secretary.*

Some Applications of Graphical Statics.*

BY JAMES R. WILLETT, C. E. AND ARCHITECT.

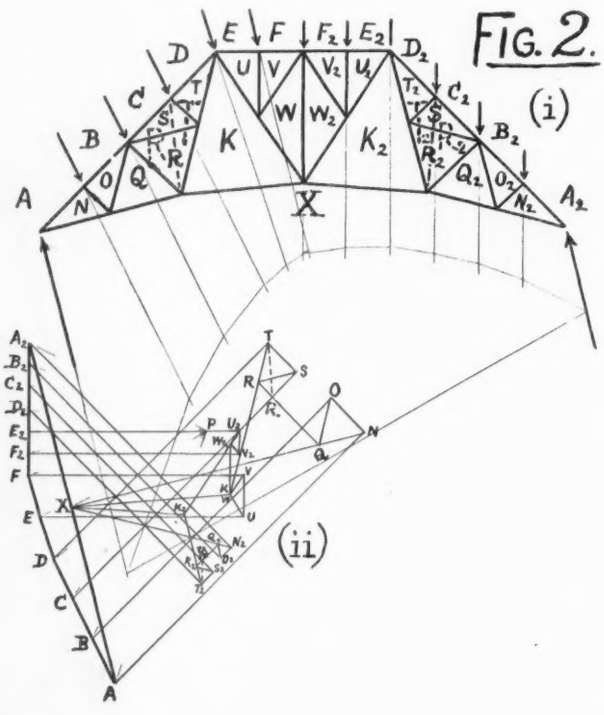
IT is intended in this paper to show how certain problems, where more than two unknown strains meet at a joint of a truss, the strains in the truss members can be found graphically, and to do this under any condition of loading.

Bow's notation is used, by which, in the truss or frame diagram, the line representing a member of the truss, or a force, is designated by assigning



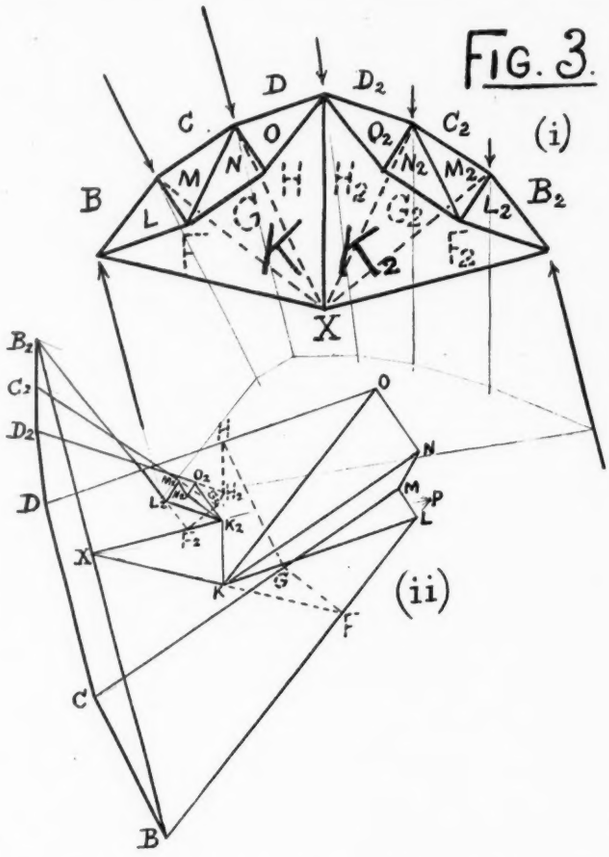
a letter to the space on each side of the line, and naming the line by both letters.

In the strain diagram these letters are placed at ends of the strain line corresponding to the given truss member or force.



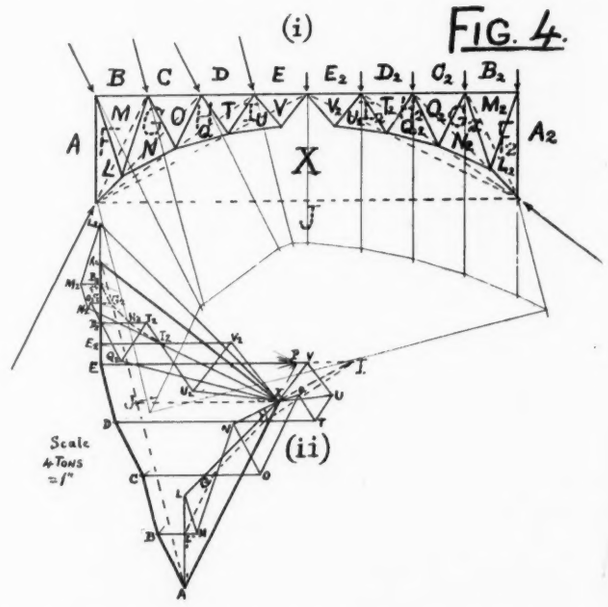
A triangle in the truss (or frame) diagram is designated by the letter placed within it. Thus the left hand triangle, Fig 1 (i), is designated by L, the central triangle by T, and the right hand triangle by L_2.

The letter P (or P_2) designates a pole by means of which the equilibrium polygon is drawn. The heaviest continuous lines denote the members of the truss or frame, and also the loads thereon. Lighter continuous lines denote the strains in the members. Faint continuous lines are used



for equilibrium polygon, and the direction of forces meeting it. The dotted lines indicate assumed auxiliary lines, which are used for certain purposes and then abandoned. Sometimes the positions of the continuous and the dotted lines coincide, and then the continuous line is drawn.

All, or nearly all, of the books on graphical statics explain how the strains in what is called by some the Belgian truss, and by others the



French or Fink truss, can be ascertained graphically, though this truss has more than two unknown strains at some of the joints; but this solution expressly depends upon the loads being all equal and vertical. We have never seen a solution attempted under any other conditions of loading.

* Paper read before the Chicago Chapter of the American Institute of Architects, March 22, 1888.

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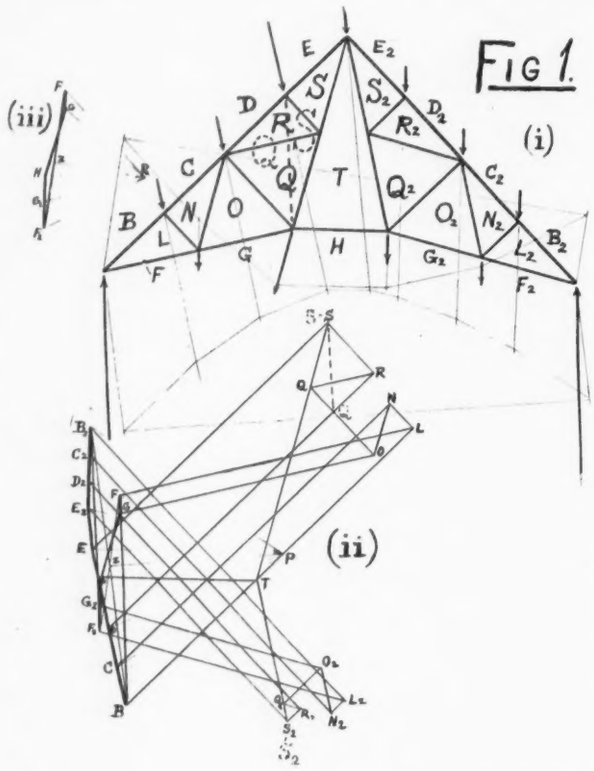

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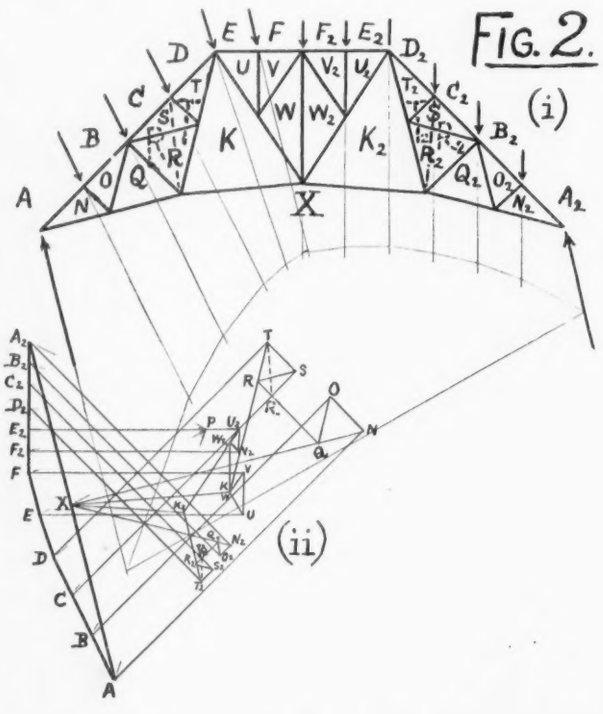

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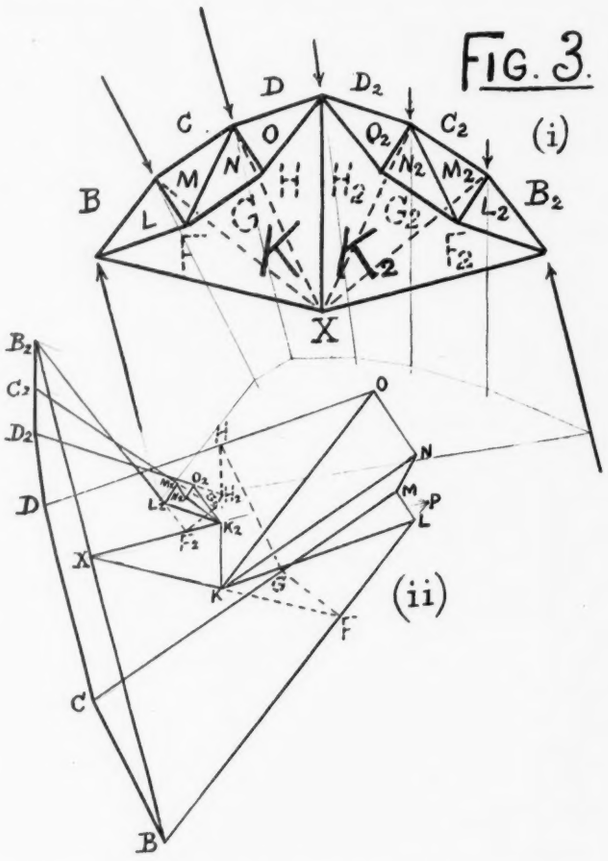

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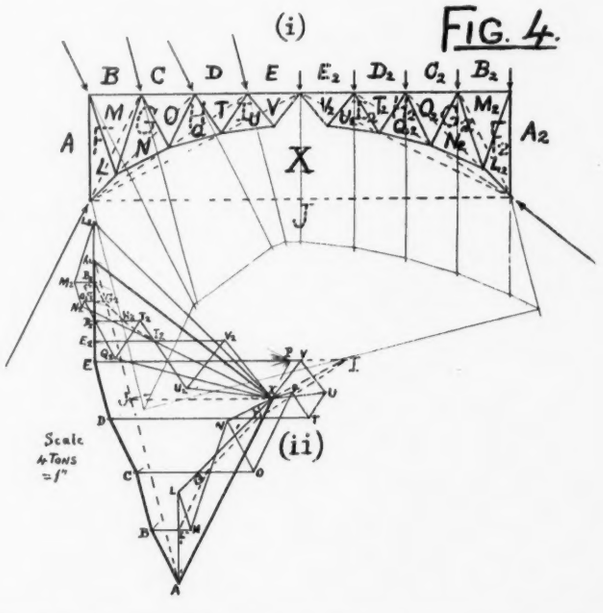

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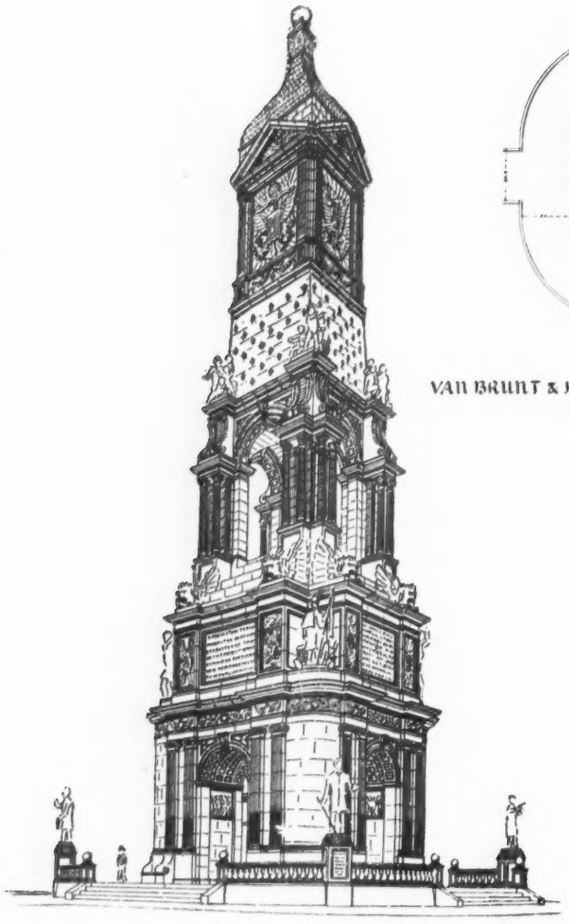
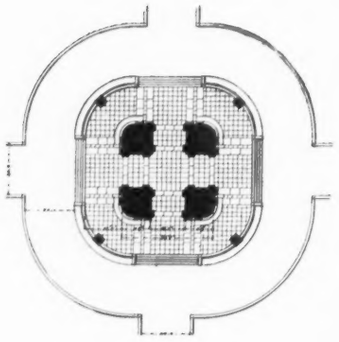
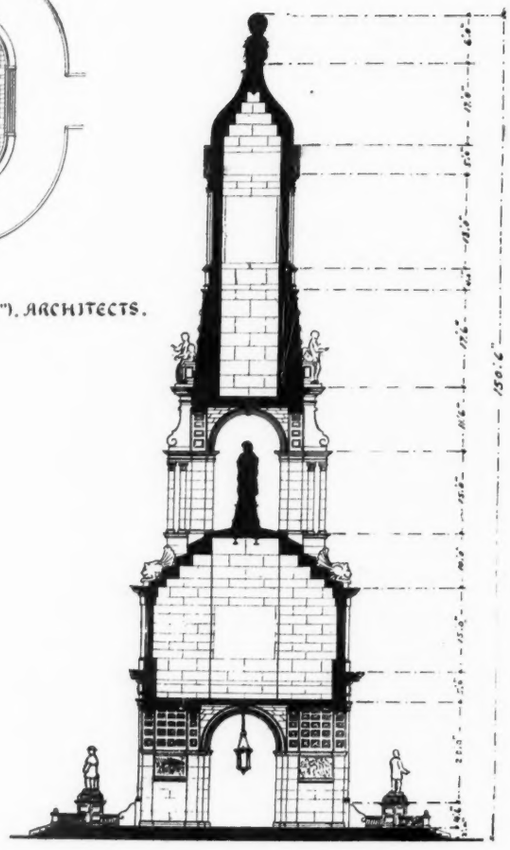
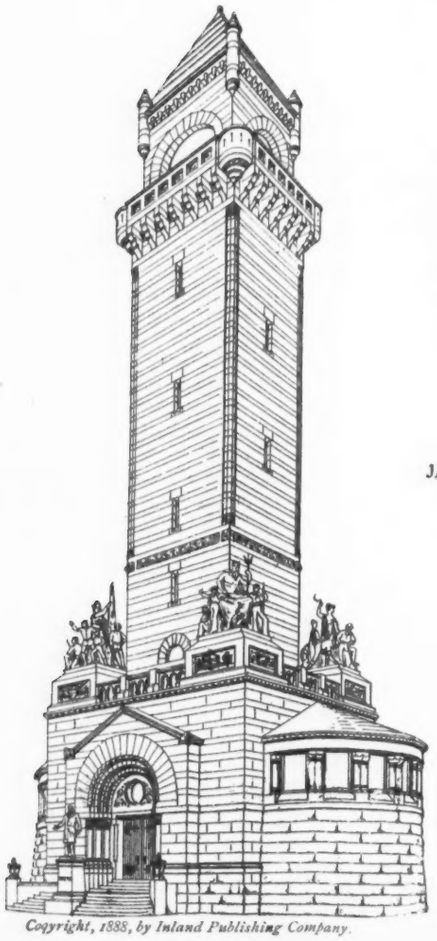
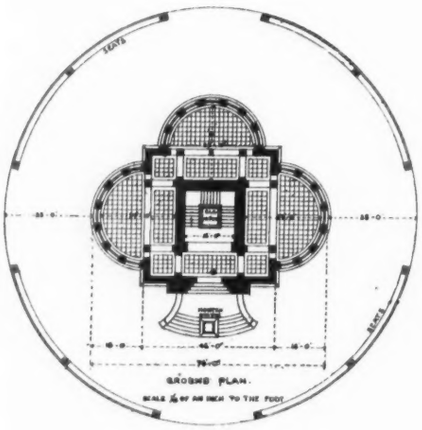




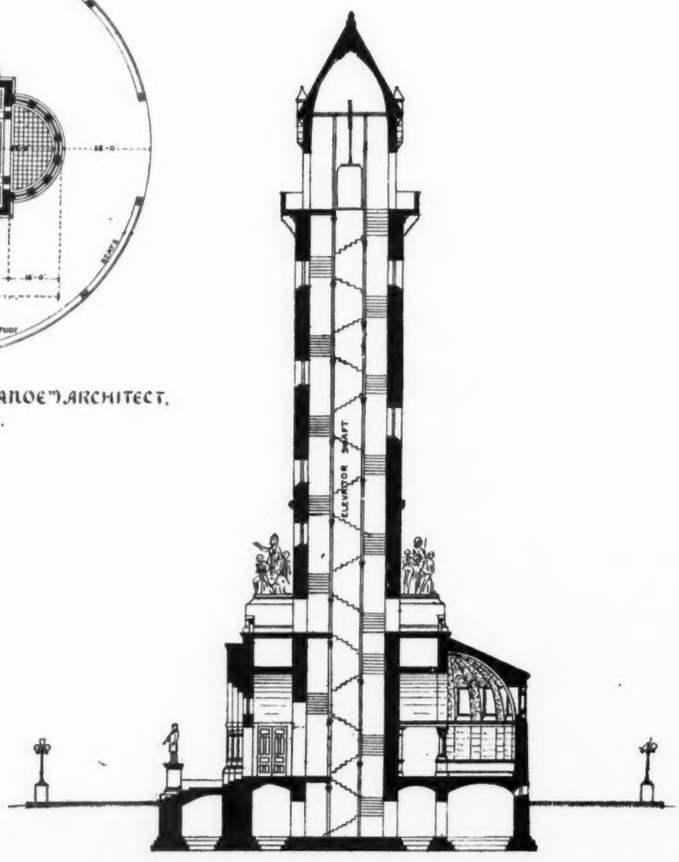
VAN BRUNT & HOWE, ("PALLADIO"), ARCHITECTS.
KANSAS CITY.







JAS. W. McLAUGHLIN, ("TIPPECANOE"), ARCHITECT.
CINCINNATI.



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COMPETITIVE DESIGNS FOR INDIANA STATE SOLDIERS' AND SAILORS' MONUMENT, INDIANAPOLIS.

RICHARD M. HUNT, ("PRO PATRIA"), ARCHITECT.
NEW YORK

COMPETITIVE DESIGN FOR INDIANA STATE SOLDIERS' AND SAILORS' MONUMENT, INDIANAPOLIS.

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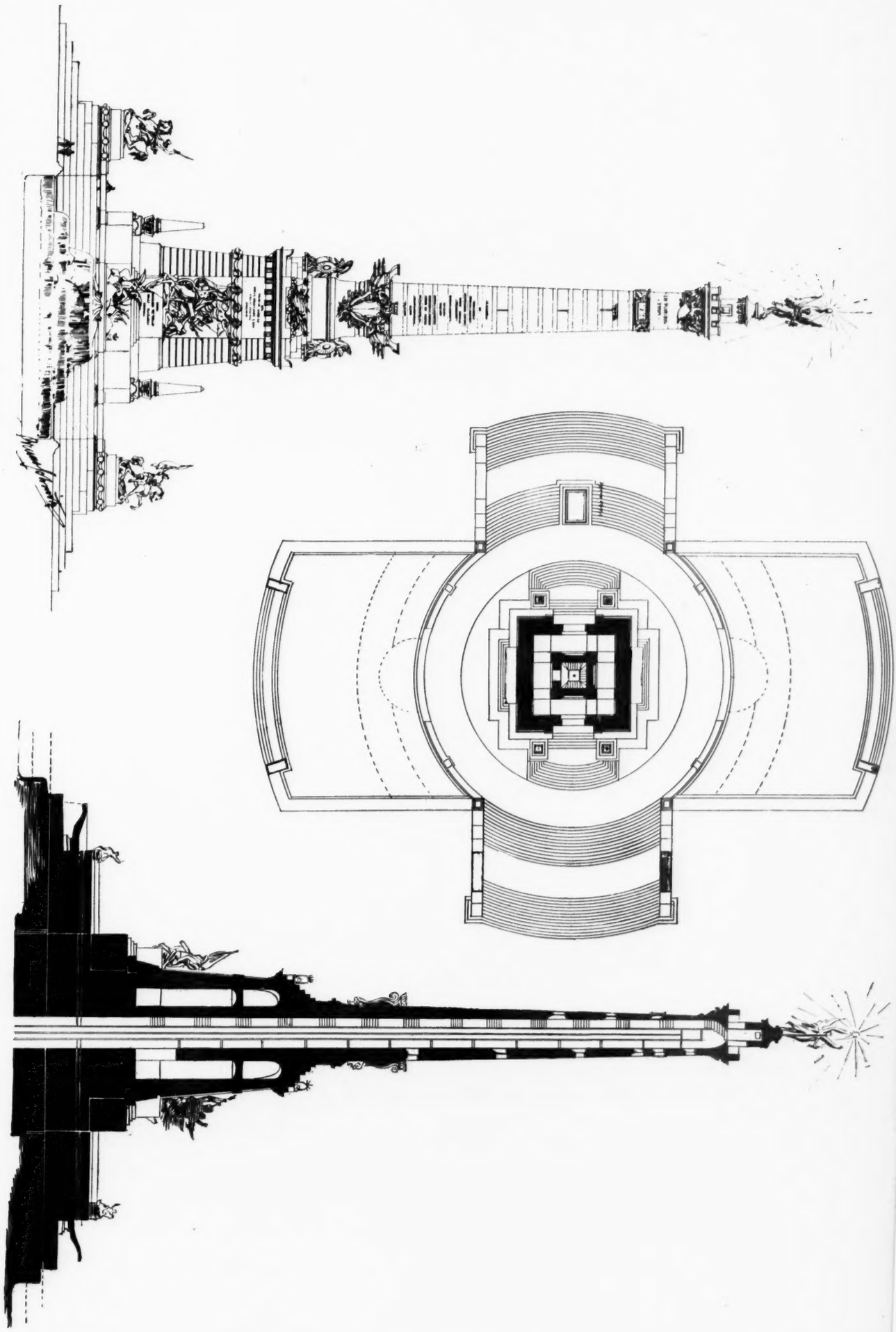

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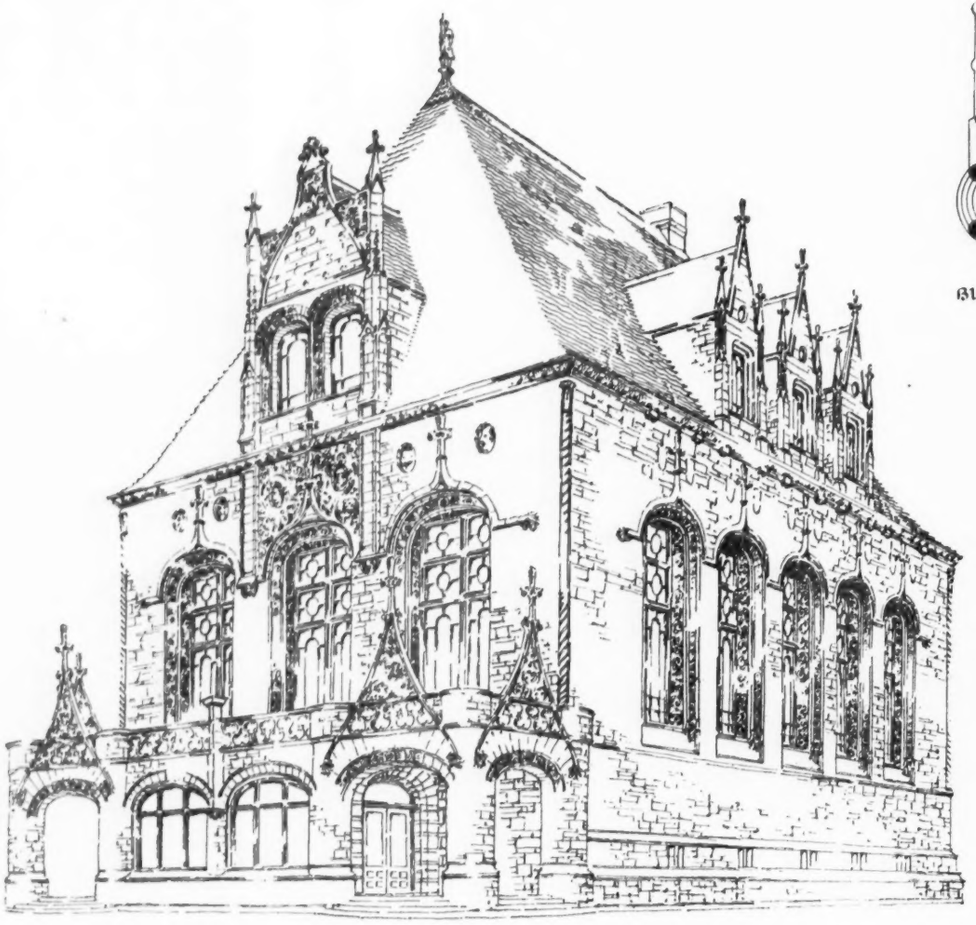
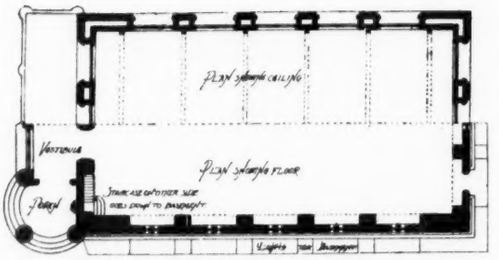
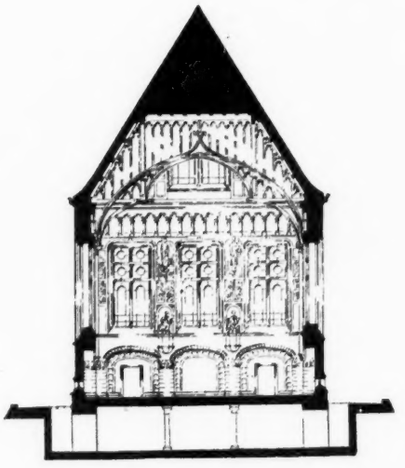
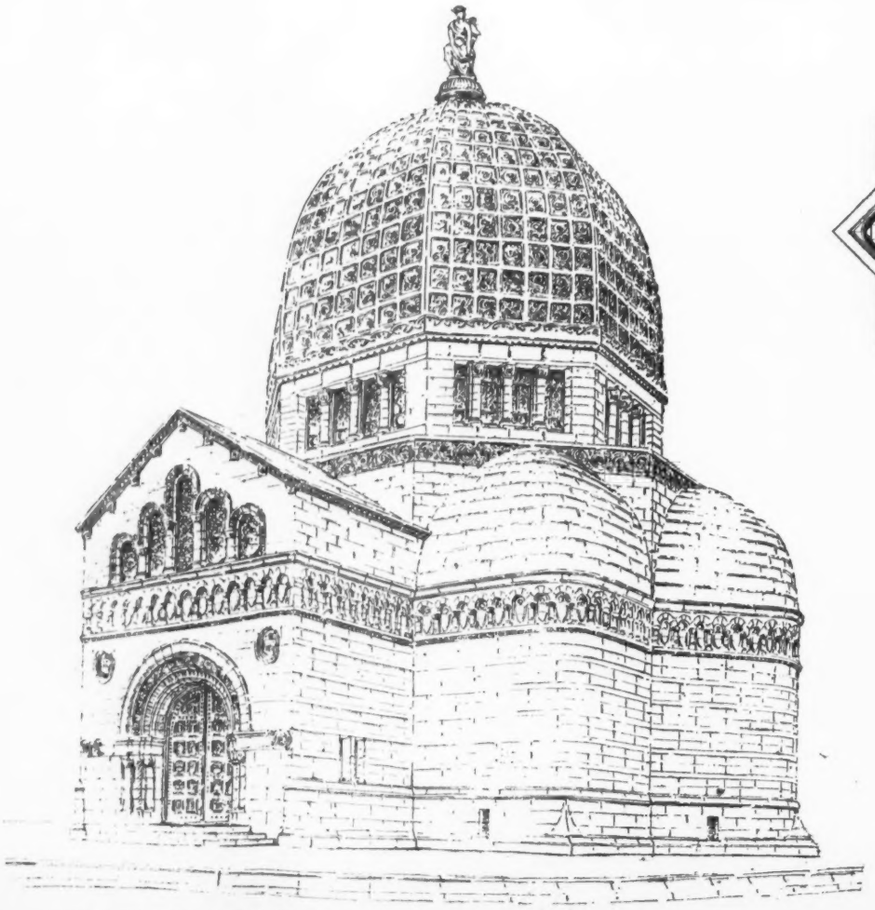


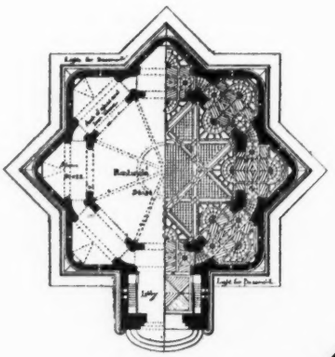


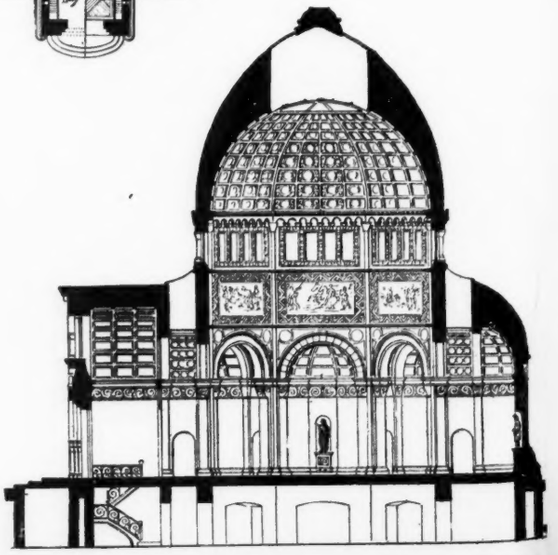
BURNHAM & ROOT ("JACQUES CŒUR") ARCHITECTS.
CHICAGO.



BURNHAM & ROOT ("SAN VITALE") ARCHITECTS.
CHICAGO.







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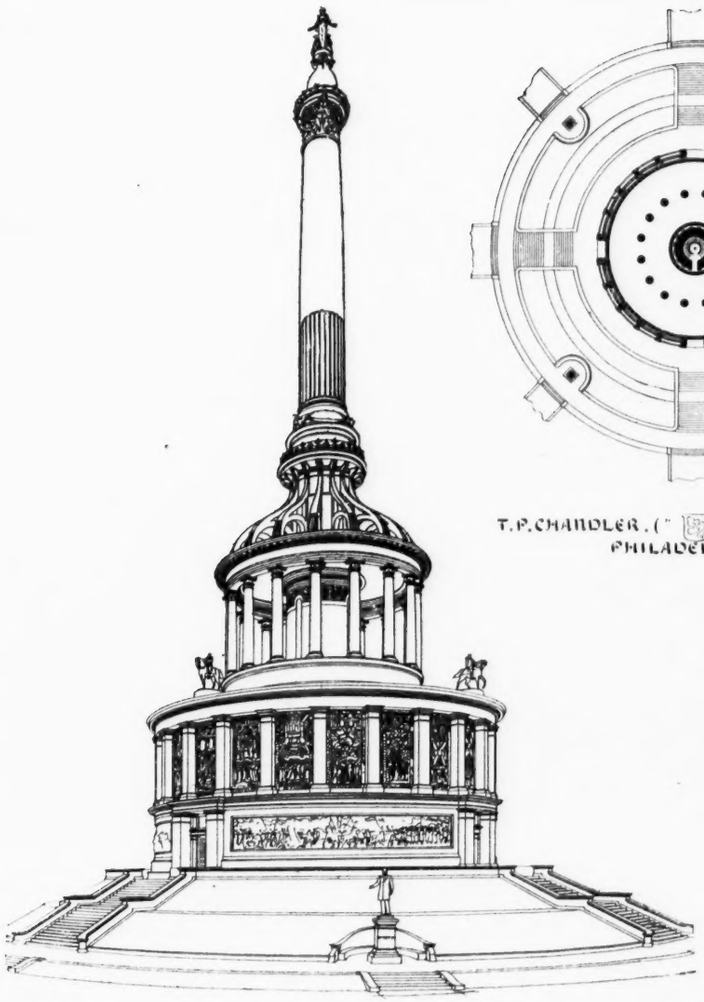
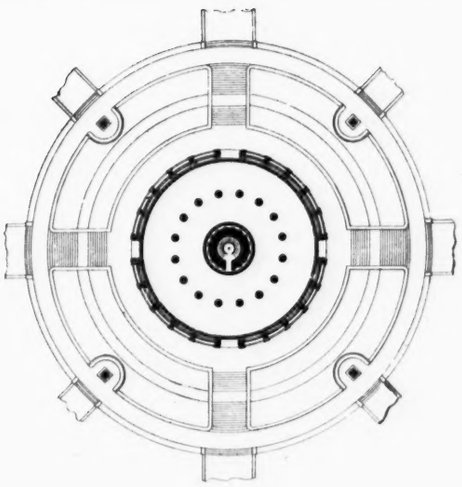
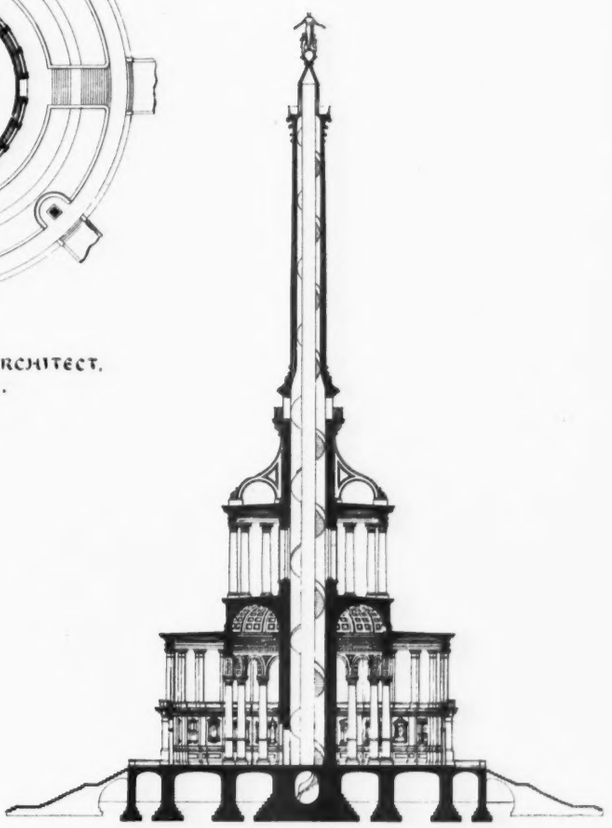
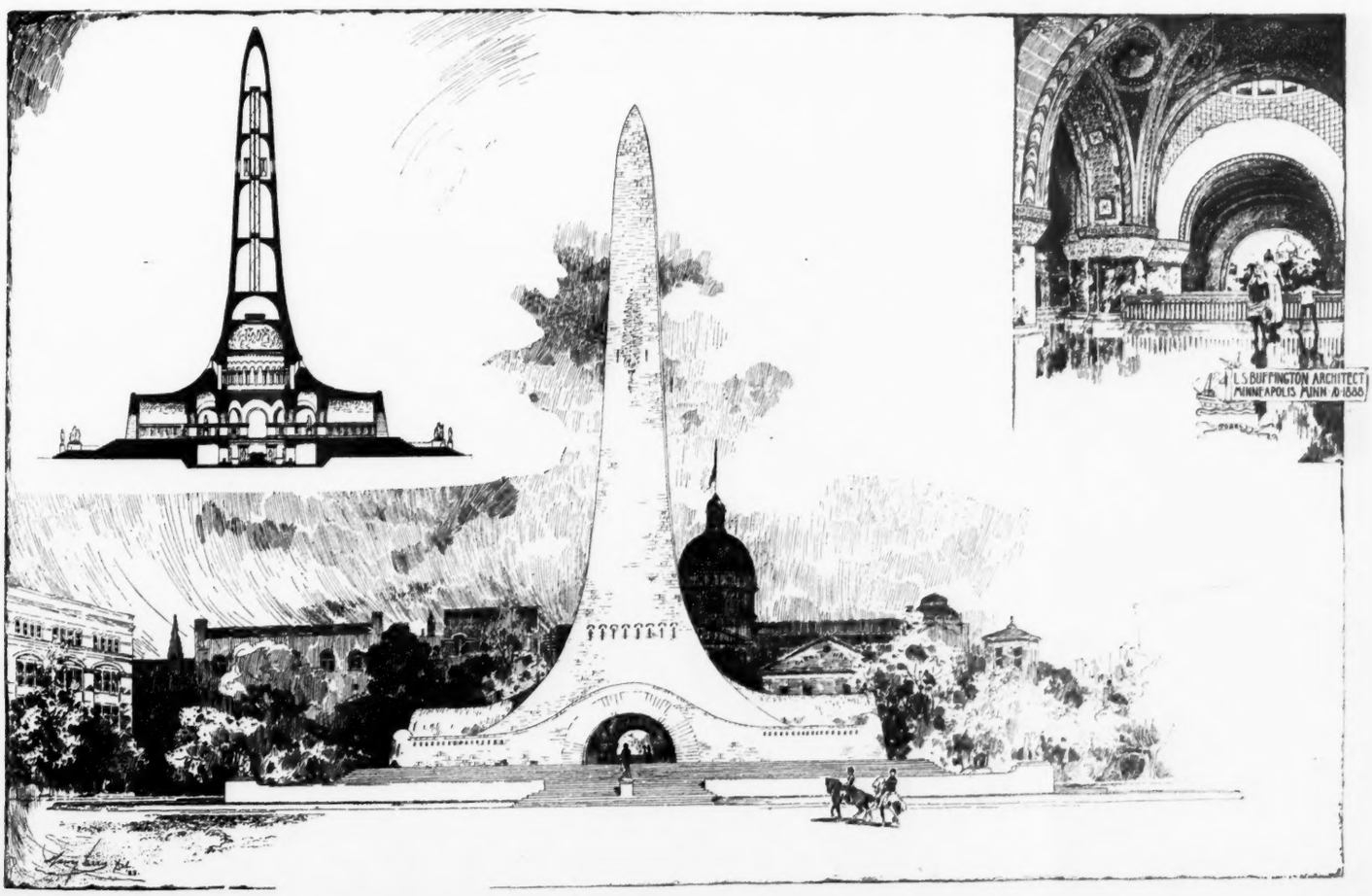


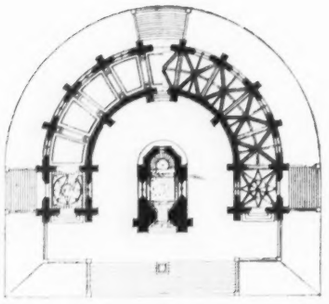


T.P.CHANDLER, (" [illegible] ") ARCHITECT, PHILADELPHIA.

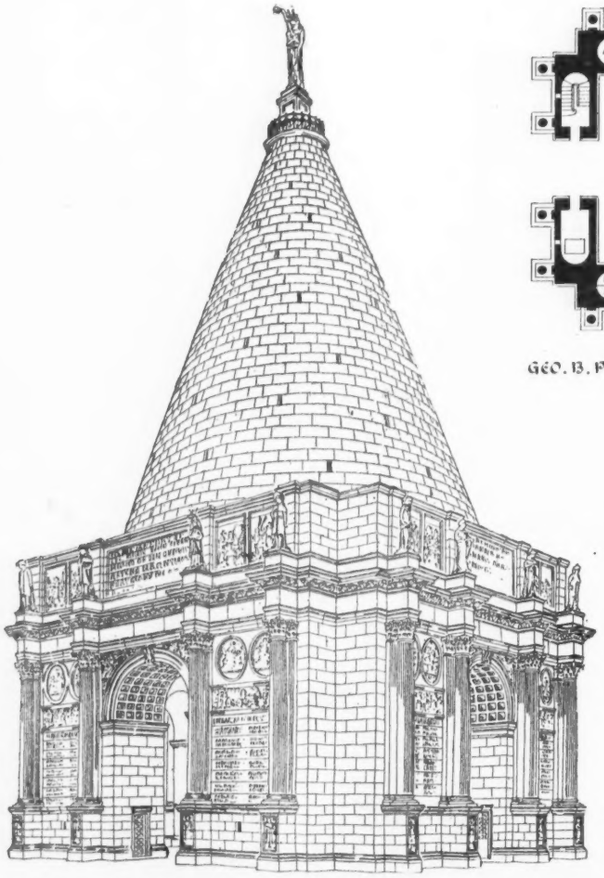


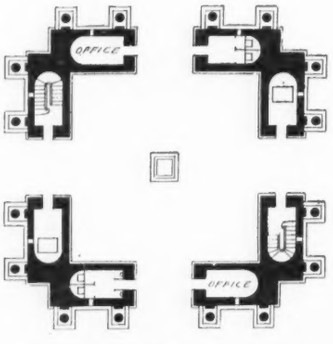


LDIERS' AND SAILORS' MONUMENT, INDIANAPOLIS.

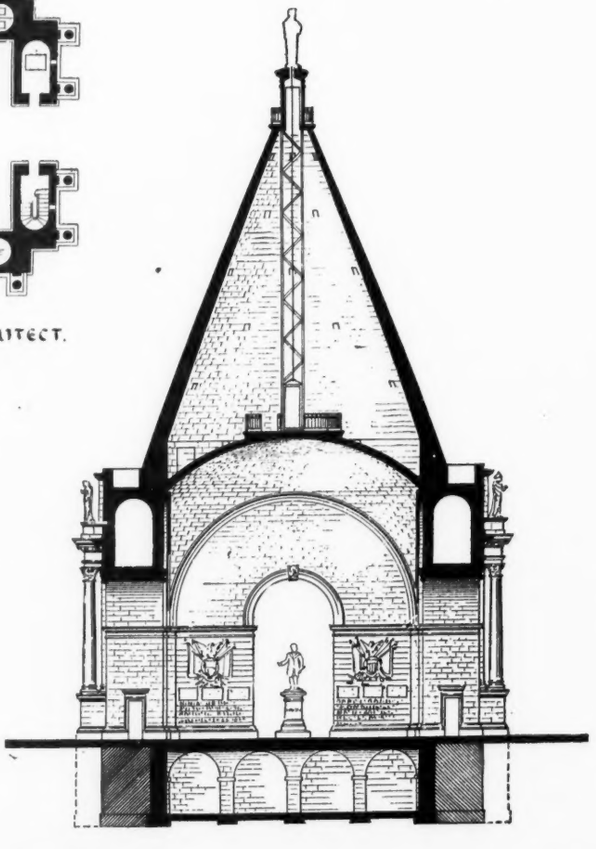


PEABODY & STEARNS, ("VENI"), ARCHITECTS.
ST. LOUIS.





GEO. B. POST, (" ") ARCHITECT.
NEW YORK.



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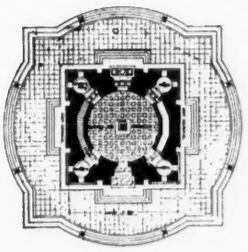
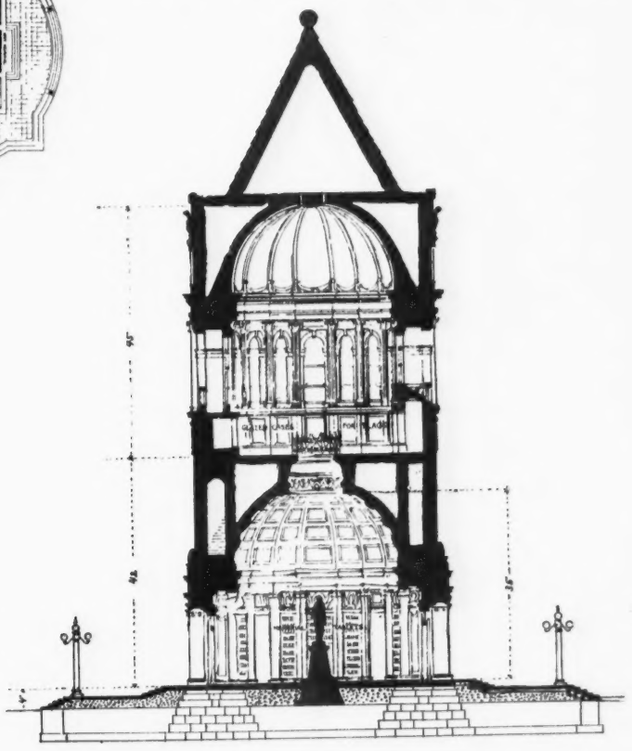
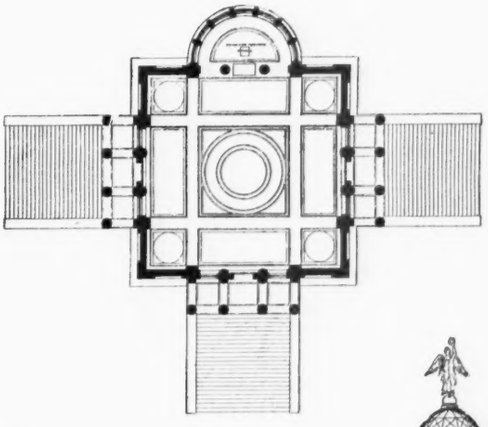
COMPETITIVE DESIGNS FOR INDIANA STATE SOLDIER

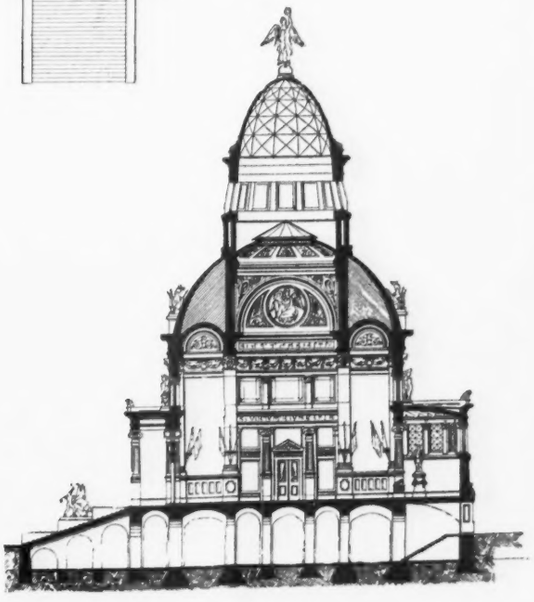


CABOT & CHANDLER, ("AD MORTEM FIDELIS") ARCHITECTS, BOSTON



FRED. BAUMANN, ("SUUM CUIQUE") ARCHITECT, CHICAGO

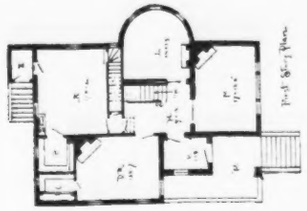




OLDIERS' AND SAILORS' MONUMENT, INDIANAPOLIS.

A Block of Four Residences, Chalmet Ave. & 55rd St.

for Joseph Beifeld Esq.



Frank LL Wright Del.

Residence for J. L. Cochrane Esq.
J. L. Silsbee Architect

MASON & RICE, ARCHITECTS.

SECRETARY'S OFFICE, Y. M. C. A. BUILDING, DETROIT, MICH.

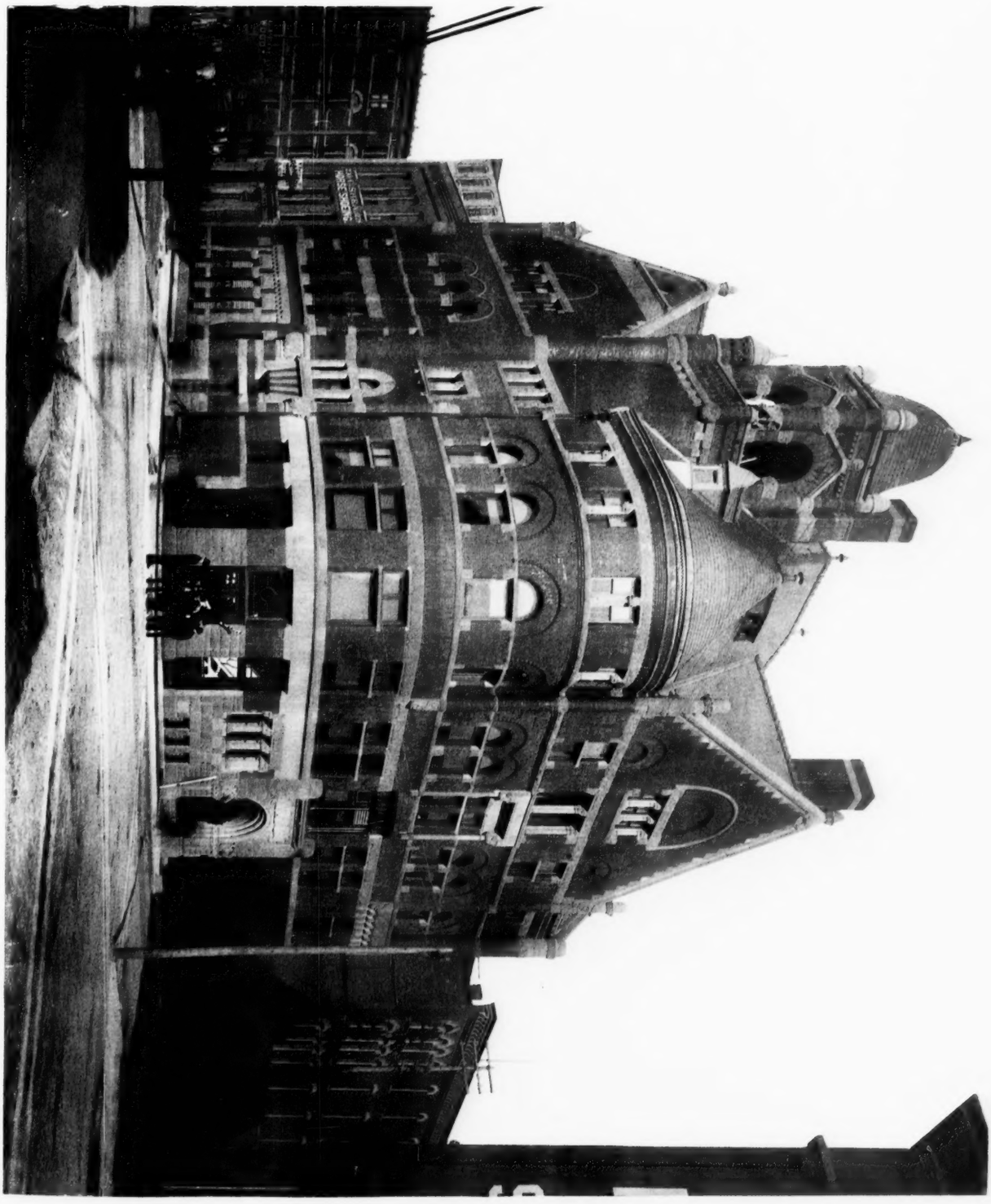
MASON & RICE, ARCHITECTS.

INLAND ARCHITECT PRESS.

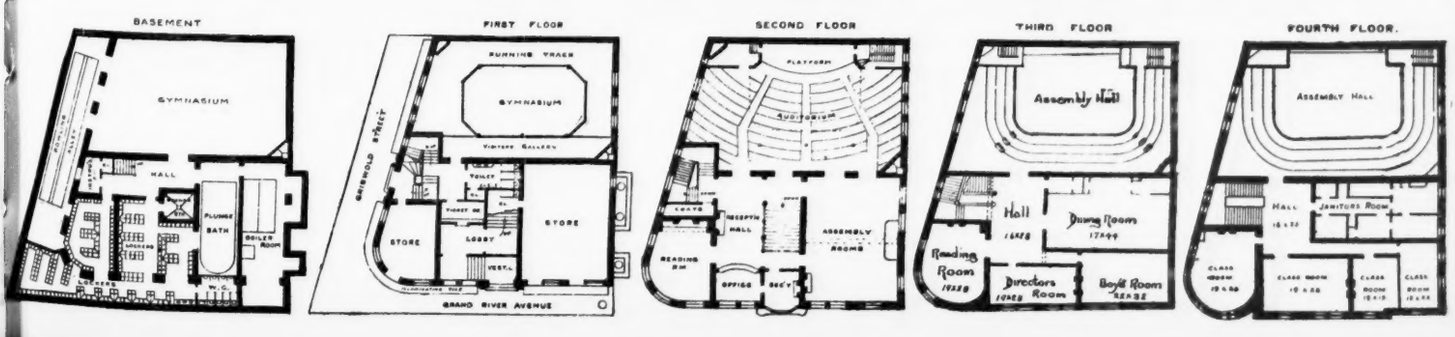
MASON & RICE, Architects.

YOUNG MEN'S CHRISTIAN ASSOCIATION BUILDING, DETROIT, MICH.

MASON & RICE, ARCHITECTS.



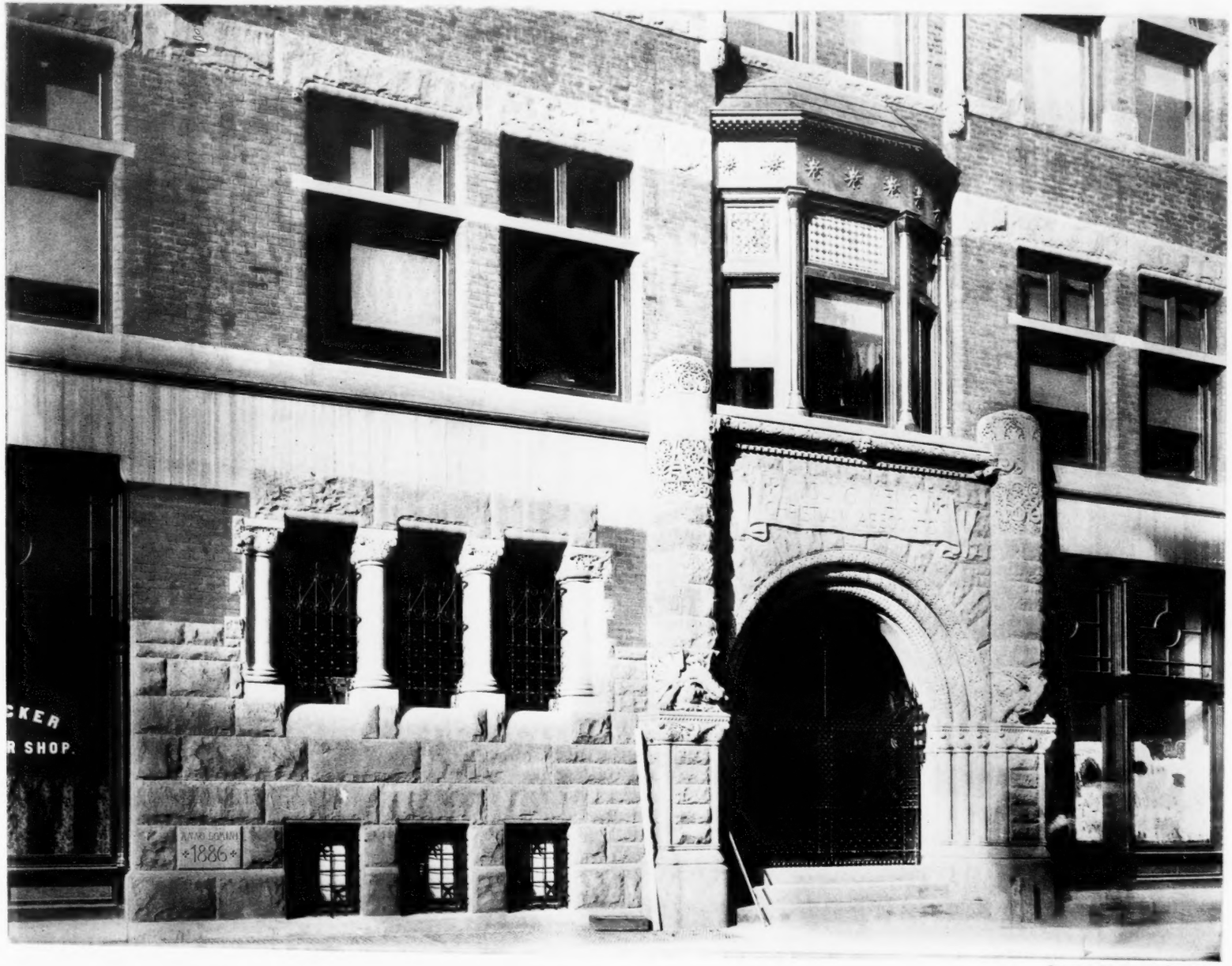
INLAND ARCHITECT PRESS.



INLAND ARCHITECT PRESS.

RESIDENCE FOR GEORGE R. PRESTON, PHILADELPHIA, PA.

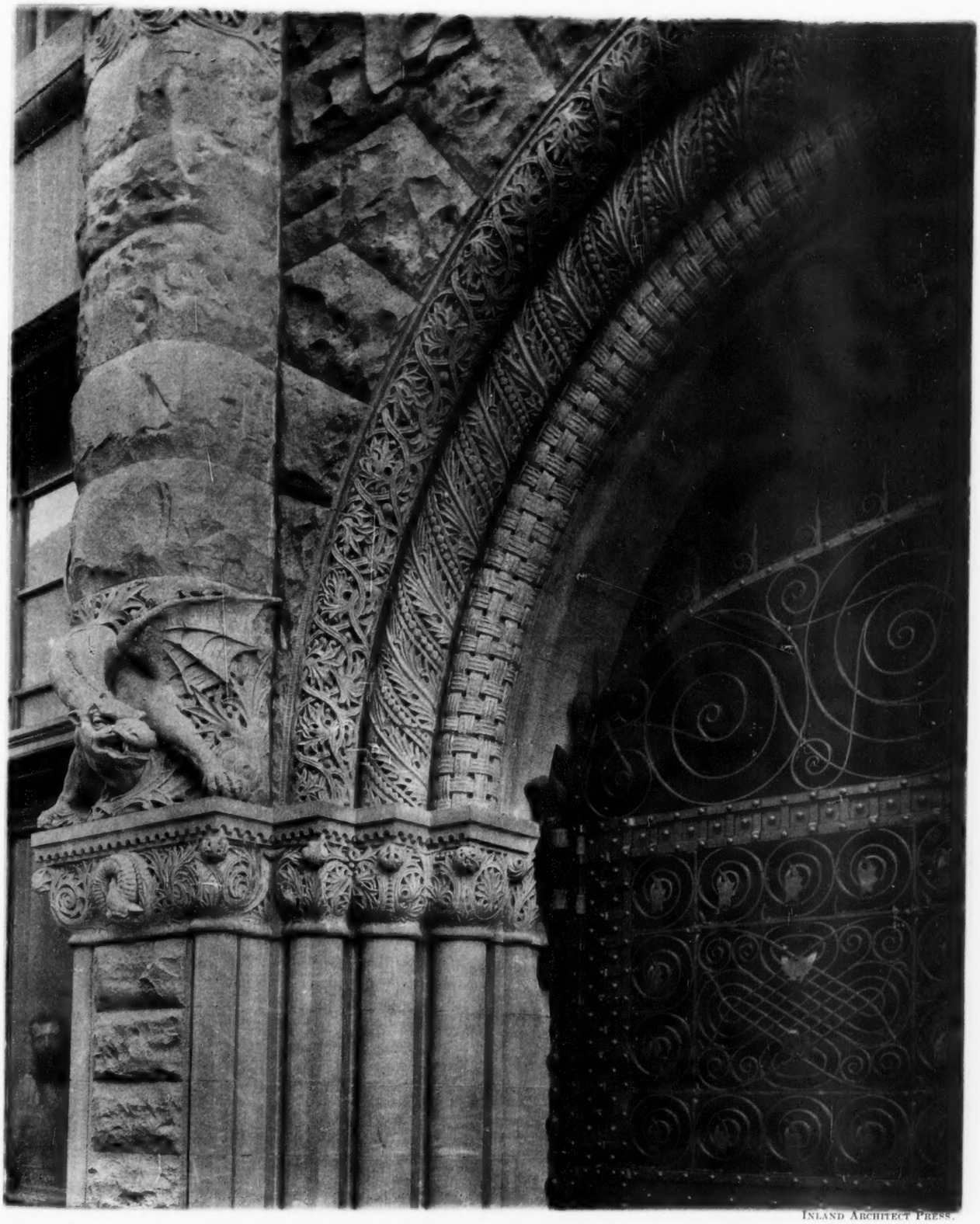
FRANK FURNESS, ARCHITECT.



INLAND ARCHITECT PRESS.

DETAIL OF FRONT ENTRANCE AND LOBBY, Y. M. C. A. BUILDING, DETROIT, MICH.

MASON & RICE, ARCHITECTS.



INLAND ARCHITECT PRESS.

DETAIL OF FRONT ARCH AND GATE, Y. M. C. A. BUILDING, DETROIT.

MASON & RICE, ARCHITECTS.

INLAND ARCHITECT PRESS.

RECEPTION HALL, Y. M. C. A. BUILDING, DETROIT, MICH.

MASON & RICE, ARCHITECTS.

Fig. 1 shows such a truss. The loads are dissimilar both in directions and amounts.

Now it is practicable to solve all such cases graphically. We propose to show how this can be done.

See Fig. 1, where (i) represents frame diagram of truss, that is, it is the *frame* diagram; (ii) *strain* diagram of truss; (iii) diagram of loads on lower chord only; these loads being combined with loads on upper chord in (ii).

Find the reactions of the loads on the upper chord by means of the equilibrium polygon. Then of those on the lower chord in like manner as shown in (iii), combine these loads as shown in (ii).

Beginning at the left hand of the truss we can proceed in the usual way until the member O Q is reached. The triangle Q is an interior triangle. As the point T in strain diagram (ii), corresponding to triangle T in frame diagram (i), is yet unknown we cannot proceed further by the ordinary way. Let us proceed as follows:

Suppose that the members Q R and R S in truss, or frame diagram be removed, and a member indicated by the dotted line and the dotted letters Q and S be substituted in their place. We can then proceed in the usual way, finding the strains in O Q, dotted Q S, and S T. This will give us the point T in the strain diagram in its correct position, no matter how the space in frame diagram taken up by the triangles Q, R and S may be divided. Having this point T fixed in its proper place in the strain diagram, we can omit the assumed dotted member, return to the original frame of the truss and work out the strains in the usual way.

The position of T in the strain diagram could also be found by commencing at the right hand support of the truss, and, if correctly done, would be found to coincide with that already found.

In the strain diagram it would be found that the point Q would fall on the line S T.

It may be noticed that the points S and dotted S in the strain diagram are identical. This is the case where the triangle denoted by the letter in the frame diagram has a side forming part of the exterior lines of the truss or frame. Where a truss triangle, as Q, has no such side, the points Q and dotted Q do not coincide.

Fig. 2 is solved in a similar manner as Fig. 1, but it is necessary to commence at one support and work to the center, and then go to the other support and work to the center. In the strain diagram the point W_2 will be found to come vertically over the point W. That is, the line W W_2 in strain diagram will be parallel to W W_2 in the truss or frame diagram, as it should be. It may be noticed that the points K and W in the strain diagram coincide, but this is a matter of accident. To simplify matters no loads are taken on the lower chord.

Fig. 3 is taken from that well-known work, "Stoney's Theory of Strains." First, by means of the equilibrium polygon determine the reactions at the supports. This determines the point X in the strain diagram. From this point draw the lines X K and X K_2 of indefinite length.

Take the left hand point of support or joint of the truss or frame diagram. There are four forces, of which but one, the reaction, is known. By the usual way the problem is indeterminate. Suppose that the interior members of the truss L K, L M, M N, N K, N O and O K be removed, and members shown by the dotted lines and dotted letters F, G and H be substituted in their place.

Proceed in the usual way to find the strains in the members of the truss, as altered. We thus find the points in the strain diagram dotted F, G, H, H_2, etc. Having the dotted line H H_2, in frame diagram, prolong it downward until it cuts the lines X K_2 and X K in the points K_2 and K. We then have these points known in the strain diagram.

Now suppose the assumed dotted members to disappear and all the members of the original truss to return to their places, we can then, having the points K and K_2 in the strain diagram, complete this diagram in the usual way, and thus obtain the strains in all of the members. It is not necessary to find the points in strain diagram of all of the dotted letters. Both of the points K and K_2 can be found when the dotted H is found; that is, when the dotted letters in one-half of the truss are found. It is well, however, to work from both supports and see that the position of K and K_2 coincide when obtained both ways.

There are other checks that should be observed. Suppose the point K in strain diagram to be found; then commencing at the left hand support find the strains in the members until the point O in strain diagram is reached. Now, in finding this point the line KO has not been used, nevertheless the point O should be on this line; that is, it should be on the line drawn from K in the strain diagram and parallel to the line K O in the truss diagram. The same is true of the point O_2 and the line $K_2 O_2$. Fig. 4 is also taken from "Stoney's Theory of Strains," where it is called a "braced arch." Not having a tie, there is a thrust at the supports which therefore must be abutments. On this account the reactions at supports cannot be found, as in a truss, in the ordinary way by means of the equilibrium polygon. Let us proceed as follows:

Suppose that the dotted line J X in the frame diagram be drawn and supposed to act as a tie, then there will not be any thrust at the supports. In other words, the frame diagram will cease to act as an arch, and can be considered as a truss. The point dotted J in the strain diagram can then be found in the ordinary way.

Suppose now that the members L M, M N, N O, O Q, Q T, T U, U V and V X in frame diagram be removed and be replaced by the dotted lines, which are designated by the dotted letters.

Commencing at left hand support of frame diagram, proceed in the usual way and find the points denoted by the dotted letters F, G, H and I, also the point denoted by the letter X, which is thus obtained in its proper position.

Suppose now that all the dotted lines and dotted letters be removed and the original frame to reappear, then having the point X in strain diagram already fixed, the strains in all of the members can be obtained in the usual way. By drawing the lines A X and A_2 X in the strain diagram the reactions at supports are shown. Though it is not necessary, it is well, by commencing also at the right hand support, to ascertain the position of X. If it is correctly done it will coincide with the position already found.

There are some other checks. Suppose the point X in the strain diagram to be found. Then commencing at any point, say the left hand support of frame, find the strains in the members until point V in the strain diagram is reached, remembering that in getting it the line X V has not been used. Now the line joining X and V in the strain diagram should be parallel to the similarly lettered line in the frame diagram. The same is true of the point V_2 and the line X V_2. After the point X in strain diagram is obtained, it is not necessary to commence at a point of support in order to obtain the strains. Indeed, it will generally be found best to commence at the center of the frame.

This method can be applied to an infinite number of trusses or frames.

The Indiana State Soldiers' and Sailors' Monument Competition.

UNDER an act passed at the last session of the legislature of the state of Indiana, a competition was inaugurated calling for designs and estimates for a monument to be erected in memory of the soldiers and sailors of the state. The act ordered the appropriation from the general fund of $200,000, and the appointment of a commission for the proper carrying out of the project, with general instructions for their guidance, but placing in their hands the power to collect further funds in the way of contributions, etc.

The commission appointed, in accordance with this special act, consists of George J. Langsdale, president; D. M. Ransdell, S. B. Voyles, George W. Johnston, D. C. McCollum. James F. Gookins, an artist of note and a man largely qualified by experience to fill the office of secretary to such a commission was elected by the board to fill that position. The gentlemen composing the commission were selected from the most prominent and trustworthy in the state, and when the first circular was issued in compliance with the law and found to outline a form of competition which the architectural profession would consider it unprofessional to enter into, and being so informed by their secretary and also by THE INLAND ARCHITECT, they recalled the circular and proceeded to ascertain upon what plan designs from the best architects in the country or the world could be obtained.

The result was the engagement of three experts for the proper adjudication of the competitive drawings and the formulation and issuing of a competition circular. These were Professor William R. Ware, Professor of Architecture, of Columbia College, New York; Professor John L. Campbell, of Wabash College, Crawfordsville, Indiana, and General Thomas A. Morris, a commissioner of the Indiana State Capitol building, Indianapolis. The following is the competition circular issued, the instructions regarding ground, estimate of cost being omitted:

COMPETITION.

This commission is directed and empowered to erect a monument or memorial structure to cost $200,000, and additional donations, on Circle Park in the city of Indianapolis, and to prepare, select, or adopt a design, and to appoint the author thereof to carry on the work.

The commission has invited Architects

Richard M. Hunt, of New York,	Burnham & Root, of Chicago,
George B. Post, of New York,	Frederick Baumann, of Chicago,
Van Brunt & Howe, Kansas City,	Jas. W. McLaughlin, of Cincinnati,
Cabot & Chandler, of Boston,	Adolph Scherrer, of Indianapolis,
T. P. Chandler, of Philadelphia,	Peabody & Stearns, of St. Louis,

To prepare sketches for the proposed structure, for which each of those invited will be paid the sum of $200.

The commission will receive and entertain designs by other architects and sculptors not so invited.

It is the purpose of this competition to assist the commission in determining the general character of the monument to be erected, and, if possible, to select an architect or sculptor. All questions as to the character and special treatment of the groups, statues, reliefs and other artistic and decorative details are left to be determined hereafter in consultation with the architect or sculptor selected, and with the special experts in these arts, who will be invited to aid the commission in the selection and direction of this part of the work.

The commission will not at this time receive any tenders of contract or proposals to execute the work.

* * * * * * * * * * * *

The design may comprise a tower or column, a memorial hall or vestibule, with mosaics, bas-reliefs, statues, or groups of sculpture, either out of doors or within, and it is for the competitor to judge which of these features to employ, and in what proportion they shall enter into his composition.

* * * * * * * * * * * *

The following drawings, and these only, will be furnished by each competitor; one plan, one elevation, one section, one perspective, one plan of the park, showing the location of the structure and the treatment of the surroundings.

These will all be drawn to a uniform scale of one sixteenth of an inch to the foot, and finished in line with India ink with the drawing pen. They are to be back lined, and no shadows are to be cast. There is to be no brush work except in blacking windows and the sections of the walls and floors. The lettering and figuring is to be plain and simple, like ordinary printing type, and is to be confined to the names and dimensions of the rooms or other features of the structure, written in the middle of each, without explanatory comments, which are to be put by themselves, as has been said, in a separate memorandum.

The perspective, also, is to be drawn in line only, without background or foreground, and without shading, even in windows; the structure to be set at an angle of 45 degrees with the plane of the picture, the vanishing points being set 30 inches apart, and the nearest point of the structure, which is to be the southeast corner, set 12 inches from the right-hand vanishing point. The horizon is to be taken at the level of the principal floor. The scale of the perspective is to be twice as large as that of the elevation, on the nearest corner, or one-eighth of an inch to the foot. The plan of the lot is to be on a scale of 1-64 of an inch to the foot.

Any of the competitors may present more than one design if he chooses to do so, and may show alternatives and variations in any of the drawings by means of "flaps" attached to it, but no additional or extra drawings, besides the five asked for, will be received in any one set.

These drawings are to be made each upon a half-sheet of imperial paper, the paper being cut down to the dimensions of 13 by 20 inches, and surrounded by a single line for a border. Each drawing, and also the accompanying memorandum, is to be distinguished by a motto or cipher, and no handwriting of any sort is to be put upon either. A sealed envelope, bearing the same cipher or motto, is to contain the name and address of the writer, and he may inclose with it any information in regard to his training, experience, or present professional position, and his qualifications for carrying out the designs necessary to the completion of the work, or for conducting the work itself, to a conclusion, or for both, which he may desire to bring to the notice of the commission.

These drawings are not to be framed, glazed, nor even mounted on cardboard, but are to be delivered flat in a sealed portfolio, expressage paid, on or before December 12, 1887, to the Board of Commissioners, in care of George J. Langsdale, president, at Indianapolis, Indiana.

The commissioners will, at 2 o'clock P.M., on the day named, and from day to day until the business is concluded, proceed, with the assistance of the Board of Experts, to

give a thorough examination of all drawings which may have been submitted, and forthwith select and adopt that one which they find suitable, if any such there be.

The plan or design so selected shall become the property of the state, and its author will be appointed supervising architect or sculptor, to erect the structure, if the commissioners find that, in their judgment, they are warranted in doing so, it being distinctly understood that no design will be adopted, and no such appointment made that is condemned by any one of the Board of Experts, who will be required to furnish a written report, setting forth the results of their examinations, with their comments and recommendations, and that this report of the experts will be regarded and fully considered by the commissioners in making their selection. But if, as may happen, they find themselves unable to choose, upon the evidence before them, between two or more of the designs, they will invite the competitors between whom their choice then lies to present, under the instructions of the commission, such further explanations as the questions at issue may require, and, if they find it necessary to do so, will institute a second competition among them, for which a sufficient time will be allowed. If any one of the designs is then found to be suitable, and is accepted, the successful competitor will in this case, as in the former case, be appointed to be the supervising architect or sculptor. But in neither competition will a design, otherwise acceptable, be rejected on account of its cost, without first giving its author an opportunity to justify his estimates.

In any case the supervising architect shall be paid a commission of five per cent on the total cost of the work, including all sculpture and other decoration, and the embellishment of the grounds.

If a design presented by the competitors is adopted by the commission a premium of $500 will be paid to the author of the second best design, if it is in every respect suitable for execution. In case no designs are accepted no premiums will be paid.

Each of the architects invited to take part in the second competition, should such a competition be instituted, will receive from the commission a sum not exceeding $400, as compensation in full for their additional services, whether he is or is not of the number of those specially invited to take part in the first competition. The unsuccessful competitors not so invited will not receive any remuneration.

In case of the successful competitor in either competition, such payments as have been made to him will be considered as payments on account of his commissions as supervising architect.

The commission reserve the right, in case their choice falls upon an architect whose experience and professional standing do not, in their judgment, warrant them in putting the practical conduct of the work into his hands, or who, by reason of distance, does not desire to undertake it, to associate with him some experienced person, to be nominated by himself, subject to the approval of the commission, and upon whose competency in this respect they can rely, paying to each his share of the customary fees for his share of the work.

The commission will also, if they deem it necessary, employ a superintendent, whose duties and compensation shall be prescribed by them.

The commission reserve the right to reject any and all plans should they not succeed in finding one which, in their judgment and that of the Board of Experts, is suitable.

All drawings will be returned to the competitors as soon as the commission has made its selection, and they will not be shown to the other competitors, nor to the public, without the consent of their several authors, previously obtained in writing, but only to the commissioners, their secretary and the Board of Experts appointed by them.

Nor shall anything shown in any of the rejected designs, or otherwise suggested by any of the rejected competitors, which is original with him as to this competition, be adopted and made use of without the consent of its author and proper remuneration being made him, the amount thereof to be agreed upon between him and the commission, and in case of disagreement, to be referred to the Board of Experts.

The commissioners will allow no direct or indirect conferences with any competitor, in public or in private, and any information that any of them, or either of the Board of Experts may find proper to communicate to any one of the competitors, in answer to questions or suggestions, will be made in print, and will be simultaneously communicated to all the rest. Such questions or suggestions must be made before the 15th of October, and should be addressed to one of the undersigned, who will communicate with each other before replying.

The final action of the commission and the report of their Board of Experts will be communicated to all the competitors.

By order of the Board of Commissioners,

GEORGE J. LANGSDALE,
President.

WILLIAM R. WARE,
JOHN L. CAMPBELL,
THOMAS A. MORRIS,
Experts.

JAMES F. GOOKINS,
Secretary.

On January 26 last, the experts made their report to the Board of Commissioners, the result being announced in the following circular sent to the competitors:

OFFICE OF THE STATE SOLDIERS' AND SAILORS' MONUMENT COMMISSION,

MR. ..... INDIANAPOLIS, Ind., February 1, 1888.

DEAR SIR,—The competition provided for by advertisement and the code of instructions to designers, and subsequent bulletins, issued from this office for the Indiana State Soldiers' and Sailors' Monument, resulted in the submission of seventy sets of drawings to the commission, the examination of which began January 12 and ended on the 27th of the same month, in the selection of that one of the designs marked, "Symbol of Indianapolis," executed by Bruno Schmitz, of Berlin, Prussia, as first choice, and that one marked "*Acta Non Verba*," by Percy G. Stone, of London, England, as second choice, and in consequence Mr. Schmitz has been selected to take charge of the erection of the proposed structure. This action is unanimous, and is done on the unanimous approval of the professional advisers of the board, whose report is sent herewith.

In returning your drawings I am instructed to convey to you the thanks of the commission for the trouble you have taken, and for the interest you have shown in the problem confided to them. I am very truly yours,

GEORGE J. LANGSDALE, President.

The following interesting and exhaustive reports were presented by the experts and are printed in full. If the architects whose designs the numbers and mottos represent, will notify THE INLAND ARCHITECT, the names will be published next month. It might be well to state here that the name of *no competitor was known* until after the final choice of a design was made:

REPORT.

I.

INDIANAPOLIS, IND., January 26, 1888.

To the Board of Commissioners of the State Soldiers' and Sailors' Monument, of Indiana:

GENTLEMEN,—We have examined the designs sent in to you on the 12th inst., and beg to make upon them the following comments, which may be of service to you in your deliberations, reserving any recommendations which, on further consideration, we may wish to make, until a later moment.

Of these designs, which the commission have, for their convenience, numbered from 1 to 70, we understand that No. 6 and No. 7 were set aside at the outset, their author having signed his own name to the written description which accompanied them contrary to the provisions of the printed instructions. One, No. 69, was rejected on account of the excessive cost named in the estimate that accompanied it.

Of the remaining sixty-seven, fourteen show a memorial hall alone. Of these, the two numbered 10 (with the motto "Hero Worship"), and 11 (with the motto "*Vincit Amor Patriae*"), seem to us most deserving of serious consideration, though No. 16 ("*Ad Mortem Fidelis*"), No. 40 ("*Jacques-Caur*"), and No. 53 ("*San Vitale*") have great excellence. Twelve show a tower, of which the best seem to us to be No. 28 (Symbol—A square with four circles at its corners), No. 34 ("*La Tour D'Auvergne*"), No. 60 ("*Circumspectus*"), and No. 66 (Symbol—A sword and scroll, "Indiana").

Thirteen show a hall and tower combined, of which No. 46 ("*Arma Virumque Cano,*" No. 2), No. 55 ("Tippecanoe"), and No. 62 ("*Veni*"), seem the most successful.

Nine exhibit a column or other form of monument, many of which are admirable, especially No. 4 ("Symbol of Indianapolis"), No. 22 ("*Pro Patria,*" No. 1), No. 32 ("Eagle"), No. 64 ("Art"), No. 67 (Symbol—A disk partly eclipsed), and No. 68 ("*Acta Non Verba*").

Eight show a column, or other form of monument, in combination with a hall. Of these, No 25 ("A Martial Strain"), No. 48 ("Iroquois"), No. 49 ("*Loge*"), and No. 65 (Symbol—A circle and T), are the most pleasing.

There are twelve others which it is somewhat difficult to class, one of which shows a pyramid, one a cone, and one a hemisphere as its principal feature. Among them are two panorama buildings, one or two triumphal arches, and several for which it is hard to find a name. No. 1 ("Wabash" No. 1), No. 2 ("Wabash" No. 2), No. 30 (Symbol—Capital of column in circle), No. 43 ("*Pro Patria,*" No. 2), No. 45 ("*Finis Coronat Opus*"), are the most interesting.

Altogether, we find twenty-seven out of the sixty-eight among which the choice of the commission must lie, if their judgment at all coincides with our own. Of these, we commend eight to their special attention as presenting practicable and more or less acceptable solutions of their problem, namely, No. 10 and No. 11 among the halls; No. 4, No. 64, No. 22, and No. 68, among the single monuments; and No. 25 and No. 65 among those which combine a monument above with a memorial hall beneath.

I. MONUMENTAL HALLS.

The designs numbered 10 and 11 both present the characteristic advantages of this form of monument, in that the groups of sculpture and statues, bas-reliefs and inscriptions, which constitute the chief articulate expression of the purpose of the structure are protected from the weather. This makes it possible to employ marble and other materials, both in sculpture and in painting, which are impossible out of doors. Moreover, it enables these works of art to be seen in comfort, the visitor also being protected from heat and cold, rain and sun.

In design No. 10 $50,000 or $60,000 is devoted to the building itself, and $150,000 to the works of art it is to contain. In this it has the advantage of No. 11, in that it sets artistic expression before mere size. No. 11, which proposes to put $50,000 worth of sculpture into a $150,000 building, is at a double disadvantage, being too big for the site, and not richly enough furnished within. But in point of general aspect and monumental character and expression it has the advantage of No 10.

II. COLUMNS OR SHAFTS.

Of the next four designs two show round columns, two square shafts.

No. 22 presents a Corinthian column and pedestal, supported by a sort of stepped pyramid, which, with a vertical wall on which it rests, is about 40 feet high. This wall is covered with reliefs. Below are steps and terraces carrying four single figures. On the top of the column is a colossal figure, the head of which is 160 feet from the ground. For these sculptures $100,000 is allowed in the estimate. The column is extremely well designed, and the substructure, though a little large, is effective and dignified.

No. 68 also shows a large Corinthian column and pedestal, 240 feet high, resting upon a high plinth, adorned with reliefs and carrying four colossal panthers, recumbent, at the four corners. Besides this there is a figure 20 feet high at each corner, and a figure 30 feet high on top. The sculptured frieze, 340 feet long, is, however, omitted from the estimate, as are also certain steps, terraces, balustrades and groups of sculpture occupying the whole park, and which, as is explained in the memorandum that accompanies the design, are only a suggestion of what may, at some future day, be added if other funds become available.

The other two designs of this division, No. 64 and 4, show square shafts. These also differ greatly in size.

No. 64 is like the preceding, about 190 feet high and 150 feet across the lowest steps. The steps and the basement of the monument are round, the basement bearing a high sculptured frieze, and the steps below supplying eight pedestals carrying seated statues and four smaller ones with standing figures. On either side of the shaft near the bottom are single figures of a soldier and of a sailor, and in front a seated figure. The whole makes an interesting and very unusual composition, and the transition from the square superstructure to the round pedestal on which it stands is effected by an artistic device of unusual felicity.

No. 4 also shows a square shaft. It is about half as big again in every dimension as No. 64, measuring 200 feet across the lowest step and 265 feet in height. The approaches occupy nearly the whole of the park. Four men on horseback, four groups of figures, and a gigantic statue on top, with some trophies of arms and braces of ships, form the sculptured decoration. Fountains are shown on two sides, steps on the other two.

This is one of the most brilliant and striking of all the designs sent in, and shares with the preceding design, No. 64, the special quality of vigor that seems to result from the use of a square shaft instead of a round one. It is to be noticed also that the capital of a square shaft does not overhang at the corners so much as does that of a round one. It thus avoids a problem of construction which in a column of colossal proportions may sometimes prove difficult to meet.

In the estimate for this monument only $45,000 is allowed for sculpture.

III.—THE HALL AND MONUMENT COMBINED.

Of the two designs to which we invite your attention, which combine a monument with a memorial hall, one shows an octagonal shaft, one a square one.

No. 25 ("A Martial Strain") shows an octagonal shaft about 190 feet high, rising from a large platform of similar shape. In both shaft and platform the sides of the octagon toward the cardinal points project so as to give a slightly cruciform plan, and the intermediate sides are convex. This platform is 70 feet across and 40 feet high and contains, within, ample space for memorials.

No. 65 (Symbol—A circle and T) shows a somewhat similar arrangement. But the platform and shaft are square, and the platform only 20 feet high. It is about 130 feet across. The total height is about 190 feet.

This is the only design in which the monument is placed, not in the center of the circle but toward the northern side. The idea is already familiar to the commission. The advantages and disadvantages of this arrangement are various. It has the advantage of not bringing the monument into competition, in size, with the state house dome, and of not interfering with the view of the dome down Market street, which the people of Indiana have spent a good deal of money to obtain. It secures, through the falling off of the ground, sufficient height of the substructure, inside, without making it very high on the outside. Moreover, it conforms to a recognized principle in the location of buildings upon restricted sites. It is well understood that if a large structure is to be put upon a small piece of land it should be set near one side of the lot. It is better to have ample space in front than to be pinched all around.

On the other hand, the position suggested, though it leaves the monument in the axis of Meridian street, removes it from that of Market street. It also brings it much nearer the buildings on the north side than those on the east, south and west sides of the park, and so may be considered to work an injustice to property holders on the north side. We do not think that this consideration should have any real weight, as the abutters have no vested rights that should work to the public disadvantage. But the injury to these neighbors from the somewhat greater proximity of the monument would probably be less than is imagined, and North Meridian street would suffer no injury from having the monument brought nearer the end of the street.

We have reported the estimates just as they are given by the designers. The variation in the cost assigned for the monument itself, after the allowance for sculpture is deducted, is so great that it will be necessary for the commission to verify these figures before coming to any practical conclusion.

II.

January 27, 1888.

It is the purpose of this competition, as expressed in the pamphlet of instructions:

First. To assist the commission in determining the general character of the monument to be erected; and,

Second. To select, if possible, an architect or sculptor, to whom to intrust the work.

We understand that the first of these ends has been accomplished, and that the commission are of opinion that the monument should consist of a shaft or column alone, as its chief feature, and that this should not have a memorial hall associated with it.

We understand, at any rate, that of all the designs presented, the two which they prefer, answer this description, and that these are No. 4 and No. 68.

In this state of things, three courses are open to the commissioners, under the rules of procedure they have adopted:

First. They may forthwith select one of the designs before them, and appoint its author the architect of the monument; or,

Second. If they do not feel warranted in doing this, they may proceed to obtain such further information to guide their choice, as they may require, and make their decision upon the strength of that information; or

Third. They may open a second competition, with more definite instructions, among such of the present competitors as have sufficiently commended themselves by the drawings now in hand.

In view of these alternatives we beg respectfully to make the following

RECOMMENDATIONS.

I. We recommend them, in the first place, not now to appoint the author either of No. 4 or of No. 68, as the architect of the monument, since we regard the evidence furnished by the drawings as insufficient for a satisfactory choice between them.

Design No. 4 is, as we have said, on the whole, the most striking and brilliant of all those presented, and the scheme of a square column with cap and base is an unusual, if not an entirely novel, conception, though it has three times presented itself in this competition. Whether it would in execution fulfill the promise of his sketch depends upon the artistic resources of its author, of which such a sketch can of course give but slight evidence. The very boldness and originality of the scheme also lay it open, in execution, to the chance of crudeness, and the commission would hardly be justified in running this risk. Before giving the work to its author for execution they need to be assured that it will be safe in his hands. This assurance may come either from such further studies as he may furnish, or from equivalent evidence from other work already executed by him.

With design No. 68, on the other hand, the danger is of just the opposite kind. The merits of this scheme are incontestable, for they have been tested again and again for eighteen hundred years. A Roman column on a pedestal, with more or less of steps and terraces beneath, has, since the times of Trajan, been the most common type for memorials of this class. It is a sure recipe, which never entirely fails, and to this it owes its almost universal acceptance. But this very commonness makes it very difficult to achieve a real success with it. Nothing but unusual personal resources of taste, sensibility and artistic power can redeem it from the commonplace. Of these qualities the sketch affords no token, as it could inded hardly be expected to do, and it would be extremely hazardous to intrust the execution of the design to its author without knowing who he is, what he has done and what he would propose to do.

II. We recommend, then, that the commission take the second course open to them, and adopt the first of the alternatives provided in their programme. We advise them to inform themselves of the names of the authors of No. 4, No. 68, and of as many more as they find needful in order to reach a conclusion, and if a knowledge of the names suffices, as it may, to give the information they need, to make a decision at once upon that basis. If this proves insufficient and it seems desirable to do so, they can then ask further explanations and additional drawings. It is to be hoped that this may make a decision possible without great delay.

The commission need not hesitate to adopt this suggestion from any feeling that in so doing they would be departing from the policy of basing their choice among these designs solely upon their merit, without the possibility of personal bias. This policy has been carried out. For a fortnight they have been studying these designs, with no knowledge as to their authors, and their present judgment, by which two or three are preferred to the rest, is the result. This is as far as, in the nature of things, that policy can be expected to carry them, and as far as was contemplated in the programme which they adopted, and by which they are guided. The language of the printed *Instructions* is that, if possible, they will go a step further and make a final choice, without breaking the seals, and the dangers of that step, namely, that it may lead to the appointment of an inexperienced or irresponsible person, are sedulously guarded against in a subsequent paragraph. But this is all regarded as a bare possibility, not likely to occur, and the step now proposed, that the choice being thus narrowed, the seals shall be broken before a final conclusion is reached, is what the programme regards as the most natural and probable course of procedure.

Nor can it be objected that if the commission can now inform themselves as to two or three of the competitors they might at any time have learned the names of all, and thus vitiated the whole scheme at the outset. Their rule provides that they shall inform themselves only in regard to those between whom their choice really lies, and this only when the evidence furnished by the drawings themselves has been proved to be insufficient for judicious action.

III. In case this proves unsatisfactory the other alternative provided in their programme will still remain open to them, namely: to hold a second competition, under fresh and more precise instructions, between the competitors who have most commended themselves by their work in the first competition. This number should be extended, it seems to us, beyond the two or three who have offered the best solution of the problem as it now presents itself — the problem of a shaft or column — and should include those who have best solved the more general problem presented in the programme. In other words, it should include the authors of the designs between which the choice of the commissioners lay before they had selected designs in which the column plays the chief part, not after they had done so. This course of procedure, though not obligatory upon the commission, even under their own rules, for they are at liberty to reject all the designs as unacceptable, seems to us to be the proper course under the circumstances. As large a proportion of the designs sent in show excellence, as it was reasonable to expect. This merit is of a high order, and a number of them have been received by the commmission with marked favor. It would be wasteful and unreasonable, therefore, to throw them aside without making every effort to utilize them if possible.

Moreover, this is not only, as it seems to us, the proper thing to do, but it offers the best chance of bringing these labors to a speedy issue, and that without running any real risk for the sake of promptness. Indeed, no ultimate risks are taken at all, for it is competent for the commission, if at last the result, even of a second competition, proves unsatisfactory, to reject all designs and begin again.

III.

January 27, 4 P.M.

The commissioners having selected design No. 4 as the one which in their judgment is most suitable for the Indiana State Soldiers' and Sailors' Monument, we hereby approve the selection, and cordially agree with them that, if the design is properly executed, the result will fulfill the best expectations of the people.

All of which is respectfully submitted by your obedient servants,

WILLIAM R. WARE,
JOHN L. CAMPBELL,
THOMAS A. MORRIS.

This circular was sent not only to the architects of the United States, but to foreign countries and was accompanied by a monograph of Indiana history, which was of great value to the designers.

Of the seventy designs reviewed by the experts (representing about sixty-five architects, several having two portfolios), two designs were from Italy, four from Germany, two from England and two from Canada.

Frederick Baumann, architect, of Chicago, has been appointed deputy architect, to represent Architect Schmitz, and superintend the construction of the monument.

A synopsis of the descriptions accompanying the designs of nine of the ten paid competitors, which are illustrated in this number, is given with other descriptions of illustrations.

La Semaine des Constructeurs gives the following list of theater fires in 1887, including concert halls and equestrian halls: January 10 and 16, at Gottingen, Prussia, and Sidoli, Bucharest. February 13 and 17, at Northampton, England, and Laybach, Illyria. March 28, at Gaud, Belgium. May 26, Opera Comique, Paris. June 2, 6, 26 and 28, at Odessa, and Leschin, Russia; at Rotterdam and at Rouen. July 1, 9 and 30, at Carceres, Spain; variety theater at Hurley (?), United States, and at Venloo, Holland. August 25, Stockport, England. September 6 and 14, at Exeter, England, and at Calais, France. November 2, at Hamburg, and December 28, at Islington, London. As to this country the list is manifestly incomplete. It is noteworthy that the greatest frequency of theater fires was in June and July, months when the heating apparatus could not have been in use. In the above named casualties some four hundred lives are said to have been sacrificed.

Our Illustrations.

COMPETITIVE DESIGNS FOR A STATE SOLDIERS' AND SAILORS' MONUMENT AT INDIANAPOLIS, INDIANA.*

Accepted design by Architect Bruno Schmitz, of Berlin, Prussia (motto, symbol of Indianapolis). A column surmounted by a statue, with base encircled by bas-reliefs and statues. Height 265 feet.

Design submitted by Architect Richard M. Hunt, of New York (motto "*Pro Patria*"). Mr. Hunt favored a "tower or column" rather than a "memorial hall." Height 168 feet, rising from terrace 96 feet square, occupying the middle of a platform 160 feet square, the square being adopted as more impressive than the circular form. At the junction of streets platform masts similar to those of the place St. Marks, Venice, are introduced for banners to be displayed on gala days. Pedestals for four statues on each of the four sides for statues of the "war governor," the army, the navy, and the sanitary commission. The shaft of the column is subdivided by four bronze bands. The capital of the column is Corinthian, and is crowned by a symbolical figure in bronze, of Indiana.

Design submitted by Architect George B. Post, of New York (motto a Corinthian capital inclosed in a circle). A cruciform structure with the *motif* of the Roman triumphal arch for façades. The monument to be crowned by a copper statue of Indiana, bearing in the hands or in crown an arrangement of electric lights. Estimate of cost, $183,378.

Design submitted by Architects Van Brunt & Howe, of Kansas City, Mo. (motto "*Palladio.*") Classic in form with the *motif* of the Roman triumphal arch. Surrounded by terrace with balustrade, interrupted by four pedestals for statues of "war governor," "war president," a successful leader of the armies and some distinguished soldier of the state. The second stage to be occupied mainly by commemorative inscriptions, etc. A colossal statue of Peace in gilded bronze should occupy the third or middle stage. The whole structure is crowned at a height of 150 feet by a globe supported by four eagles. Estimate of cost, $190,081.08.

Design submitted by Architects Cabot & Chandler, of Boston (motto "*Ad Mortem Fidelis*"). A memorial building, with two rotundas and four main entrances, each occupied by statues, bas-reliefs and historical relics, etc. The building to be placed on a terrace, relieved by gardens laid out with flowers and shrubs. Estimate of cost $197,614.90.

Design submitted by Architect Theophilus P. Chandler, of Philadelphia (motto, an escutcheon bearing an oak leaf). A combined memorial hall and tower. Circular hall 80 feet in diameter, vaulted roof supported by sixteen columns. Estimate of cost, $200,000.

Design submitted by Architects Burnham & Root, of Chicago (motto "*San Vitale*"). A memorial hall. A central rotunda surrounded by alcoves, whose chief exterior effect is in reinforcing the central dome, as in the case of Santa Maria del Fiore, in Florence. The *motifs* for all decoration are taken from flora and fauna of the state and the insignia of war and peace. The whole composition is surmounted by a statue of Fame. Estimate of cost, $178,830. Also a design (motto "*Jacques-Cœur*") different in composition, but similar in purpose to the first. Estimated cost, $190,040.

Design submitted by Architect Frederick Baumann, of Chicago (motto "*Suum Cuicue*"). A memorial hall surmounted by a statue of Victory. Estimated cost $200,000.

Design submitted by Architect James W. McLaughlin, of Cincinnati (motto "Tippecanoe"). Combined memorial building and tower.

Design submitted by Architects Peabody & Stearns, of Boston (motto "*Veni*"). A large central tower surrounded on three sides by a detached semicircular structure, to serve as a memorial hall. Space is left in upper portion of tower for chime of bells. Estimate of cost $193,150.

Design submitted by Architect L. S. Buffington, of Minneapolis, Minn.

NOTE.

Owing to a misunderstanding of the description received, the designs for a city front by the Buffalo Architectural Sketch Club, published in March number, were given as first, second, third and fourth place designs. The first place was awarded to F. R. Fuller, as published, but the other three were a tie for second place. This correction is due to the three who stood equally high.

PHOTOGRAVURE PLATES.

(*Issued only to subscribers for the Photogravure edition.*)

Residence for George R. Preston, northeast corner Walnut and Twenty-second streets, Philadelphia, Pa. Frank Furness, architect.

Five full page plates of the Young Men's Christian Association building, Detroit, Mich., Mason & Rice, architects, showing the following views; General exterior view with floor plans; detail of front entrance and lobby: detail of front arch and grate; reception hall; secretary's office. The main entrance to the building is on Grand River avenue, where broad doors of paneled oak and stained glass lead to a wide stairway with walls of richly paneled bog oak of a sage-green color. This opens into the main reception hall, a capacious and luxurious room, with ceiling of terra-cotta plaster work and bog oak beams. On one side is a fireplace, reaching from floor to ceiling. Richly-carved pillars of Lake Superior redstone form its sides, and above are elaborate carvings in oak, with a design of the society's national emblem. The hall is little short of an opera house. The woodwork and frescoing are unusually elegant. The proscenium arch opens on a shallow stage, without scenery, for it is designed to have only concerts and lectures in the hall. It will seat 800. The fifth floor is unfinished, and this will give a means of future expansion. In connection with the gymnasium is a swimming pool, 35 by 17 feet in dimensions, from 4 to 7 feet deep, and containing 13,000 gallons of water. There are also private bathrooms with shower attachments, etc. Among things specially noticeable in the building is the ventilation. This is not a patent process, but it is so effective that the air of the hall is changed every eight minutes. The chandeliers are designed to match the furnishings.

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* These designs, with the exception of the accepted design and that of L. S. Buffington, were submitted by the invited and paid competitors.

Association Notes.

AMERICAN INSTITUTE OF ARCHITECTS.—A. J. Bloor, 18 Broadway, New York, secretary.

WESTERN ASSOCIATION OF ARCHITECTS.—Fifth annual convention will be held November 16, 1888, at Chicago. Normand S. Patton, Chicago, secretary; W. L. B. Jenney, Chicago, secretary of foreign correspondence.

NATIONAL ASSOCIATION OF BUILDERS OF THE UNITED STATES OF AMERICA.—Second annual convention will be held the first Tuesday in February, 1888, at Cincinnati. Wm. H. Sayward, Boston, secretary.

ILLINOIS STATE ASSOCIATION OF ARCHITECTS meets the first Saturday of every month, at 15 East Washington street, Chicago. Annual meeting first Thursday in October, 1888. R. C. Berlin, Chicago, secretary.

WESTERN NEW YORK STATE ASSOCIATION OF ARCHITECTS meets second Tuesdays of October, February and June of each year. Annual meeting in October. Next annual meeting at Buffalo. W. W. Carlin, Buffalo, secretary.

WESTERN PENNSYLVANIA STATE ASSOCIATION OF ARCHITECTS.—E. O. Danse, Pittsburgh, secretary.

MISSOURI STATE ASSOCIATION OF ARCHITECTS meets at St. Louis, on the second Tuesday in January, 1889. E. F. Fassett, Kansas City, secretary.

THE ARCHITECTURAL ASSOCIATION OF IOWA, annual meeting, second Wednesday of February, 1889. Next meeting, August 14. F. D. Hyde, Dubuque, secretary.

THE ARCHITECTURAL ASSOCIATION OF MINNESOTA meets every other Tuesday at Minneapolis and St. Paul alternately. Annual meeting January 8, 1889. F. G. Corser, Minneapolis, secretary.

KANSAS STATE ASSOCIATION OF ARCHITECTS meets at Topeka on the third Tuesday of January, 1889. J. C. Holland, Topeka, secretary.

ASSOCIATION OF ALABAMA ARCHITECTS.—Annual meeting second Thursday in October. John Sutcliffe, Birmingham, secretary.

ASSOCIATION OF OHIO ARCHITECTS meets annually. Next meeting third Thursday in August, 1888, at Cleveland. F. A. Coburn, Cleveland, secretary.

ASSOCIATION OF TENNESSEE ARCHITECTS meets quarterly. Annual meeting third Thursday in February, 1889, at Memphis. Next quarterly meeting, first Tuesday in June. W. C. Smith, Nashville, secretary.

ASSOCIATION OF TEXAS ARCHITECTS meets at Waco on the third Tuesday of January, 1889. W. W. Larmour, Waco, secretary.

KENTUCKY STATE ASSOCIATION OF ARCHITECTS meets at Louisville first Thursday in each month. O. C. Wehle, Louisville, secretary.

LOUISIANA STATE ASSOCIATION OF ARCHITECTS meets first Wednesdays in May, August, November and February. Annual meeting in February. W. C. Williams, New Orleans, secretary.

KANSAS CITY SOCIETY OF ARCHITECTS meets Monday afternoon of each week, at 4 o'clock. Annual meeting second Saturday in April, 1888. F. B. Hamilton, secretary.

NEBRASKA STATE ASSOCIATION OF ARCHITECTS meets first Wednesdays in January, April, July and October each year. F. M. Ellis, Omaha, secretary.

WISCONSIN STATE ASSOCIATION OF ARCHITECTS meets first Monday of each month. Annual meeting first Monday after first Sunday in January. Howard Russell, Milwaukee, secretary.

BUFFALO SOCIETY OF ARCHITECTS meets first and third Tuesdays each month. W. W. Carlin, secretary.

THE CHICAGO ARCHITECTURAL SKETCH CLUB meets every alternate Monday at the club's headquarters, Art Institute. G. W. Williamson, secretary. Annual meeting, November 5, 1888.

CHICAGO CHAPTER AMERICAN INSTITUTE OF ARCHITECTS.

The chapter held a regular meeting on March 22. Dinner served at 6 P.M., at conclusion of which business meeting was held.

Three applications for membership were favorably considered.

A printed extract from the minutes of February 2, of the New York chapter, relative to the proposed competition for the criminal court's building in that city, was read. By a unanimous vote, the secretary was instructed to express to the New York chapter, the hearty concurrence of Chicago chapter in the opinions expressed in those minutes.

A communication from the board of trustees of the American Institute of Architects, relative to the claims of the late Thomas U. Walter against the United States Government, was referred to a committee.

James R. Willett, architect, read a paper on "Graphical Statics applied to Architectural Questions." At the conclusion of the paper, a vote of thanks was moved, and Mr. Willett was begged to furnish copies of his paper for publication, which was carried unanimously, and the meeting adjourned.

CHICAGO BUILDERS' AND TRADERS' EXCHANGE.

A special meeting of the Exchange was held March 2. The meeting being called to consider a number of proposed amendments to the by-laws. By the amendments adopted, memberships become transferable. Instead of memberships being as heretofore in the firm name they must now be in the name of some one individual, and it is necessary for firms to at once notify the secretary of the person in whose name they wish their membership to stand. This name is transferable on the firm's order at any time free of expense. The amendments also admit the issuing of trading cards which are issued upon the firm's order to any and all employés upon payment of an annual fee of $2.00, in advance. The membership of the Exchange is now 525, and the membership fee is $50.00. When the number of members reaches 600 this fee will be raised to $300. Each member of a firm can obtain a membership if they so desire. On retirement from business memberships can be sold to parties acceptable to the Exchange.

Plans for the material enlargement of the Exchange rooms were considered and adopted, and the work of alteration will be immediately commenced.

The secretary of the Exchange is issuing postal cards to members requesting their correct address, and is particularly desirous of obtaining a complete list of the architects for publication in the Exchange handbook which is about to be issued, and architects will confer a favor upon the Exchange by sending their addresses immediately to James John, secretary of the Builders' and Traders' Exchange.

New Publications.

MONOGRAPHS OF AMERICAN ARCHITECTURE, No. V, Trinity Church, Boston, Mass.; C. D. GAMBRILL and H. H. RICHARDSON, Architects. Boston: Ticknor & Co., 1888.

In noticing an earlier monograph of this series, we spoke of the Ames memorial buildings as the most characteristic group from Mr. Richardson's studio, and hence as possessing for the architect and the student of the arts a peculiar attraction. Yet, probably the mass of people who pay any attention to architecture will select Trinity as the most admirable of all Mr. Richardson's creations. We say Mr. Richardson's creation, for while we know nothing of the distribution of work in the firm of Gambrill & Richardson, and do not question that Mr. Gambrill brought to the firm valuable qualities, yet we take it as evident from a comparison of the work of the two men, that Mr. Richardson was the ruling spirit in this case. Reasons for the popular admiration of Trinity are not far to seek. It was a new revelation to the untraveled American, used in church architecture to the prevailing forms of attenuated and half-starved Gothic, or lifeless, wooden Renaissance. But a new thing, while it can gain from the crowd a passing word of praise, cannot long hold the eye or retain the respect, even of the frivolous, unless there are solid qualities underneath the newness and glamour.

If we seek the source of the staying power of Trinity, we shall remark first, that it was a spontaneous work and came fresh from a vigorous brain. To be spontaneous, a work does not need to be unlike anything that ever before existed in heaven above or in the earth beneath. But it does need to be the bona fide expression of an idea or a sentiment that, however and wherever inspired, is unfeigned and characteristic of the man who formulates it in words or embodies it in stone. We are told by way of insinuation that Mr. Richardson sketched in southern France, and even crossed the Pyrenees and visited Salamanca. True; but Mr. Richardson also studied in a Parisian atelier, and the training there received, no doubt, had its effect on hand and eye; but it never led him to do anything bearing the most remote resemblance to the sort of thing that surrounded him at that presumably impressionable period.

The fact is, Trinity came from the heart and not from the sketch book, and this genuineness of feeling adds a felt, if indescribable, charm to the luxuriant and sense-satisfying beauty of its tower, and the seductive attraction of the cloister garth. Trinity marks a period in Mr. Richardson's development when the exuberance and somewhat unrestrained imagination of youth had not been subdued by those sterner and severer qualities that especially characterize his later work, in which the real man had wrought itself out and subjected its creations to rigorous and searching criticism. It was because of this steady progress in the path into which his early instincts led him that, in later years, Mr. Richardson came to wish that he might have the privilege of doing Trinity over again. In much we trace the same hand that we have come to know so well in his later work. But we are quite sure that, if, in Trinity done anew, the Copley Square front had not received a radically different distribution of parts, it at least would have been detailed in a very different manner. Indeed, the main difference between Mr. Richardson's earlier and later work is in the application and working out of detail, though he also grew steadily in his application of the value of strong and simple masses. And it is these two things that give his work that rugged severity which is stern without being brutal, and is, withal, lightened and enriched with fitly-placed and aptly-designed detail. Yet the very simplicity and self-control, which are indeed essential to all great art, are so emphasized in Mr. Richardson's individuality, that in his later works they have deprived him of the full sympathy of the majority of the architecture-loving of the American people, so that it is common to hear concerning many of his late designs more expressions of respect than of delight. We venture the prophecy that the American people, as they grow older, will grow toward a greater appreciation of Mr. Richardson's vigorous and virile massing, while it is not unlikely that they may demand a more unsparing use of ornament and a lighter treatment in some classes of building. A combination of these qualities would have added to the just proportions and dignity of his later work somewhat of that charm that renders Trinity, in spite of its faults, an unfailing delight.

The Trinity Monograph contains twenty-three plates of faultless execution; the first being a reproduction of a photographic likeness of Mr. Richardson, and the fourth a beautifully gotten-up helio-chrome view of the apse and tower from the southeast.

Mosaics.

THE Bruschke Furniture Company are arranging showrooms for the exhibit and sale of wood mantels, in connection with the mantel and grate house of Riley & Co., on Wabash avenue. The entire second floor is occupied as a showroom and has been handsomely arranged for the exhibition of designs in wood mantels. The Bruschke Furniture Company was founded by Mr. R. Ricke about fifty years ago and long known under the firm name of Bruschke & Ricke, and represents the oldest concern in the furniture business in Chicago. Since the demand for especial excellence and elaboration in interior finish has increased, as it has in the

last decade, this concern has become known to architects throughout the South and West as reliable contractors for this class of work.

IT will probably be interesting to fitters, architects, builders, etc., to learn that the Gurney Hot Water Heater Company, of Boston, have been awarded the gold medal at the Massachusetts Charitable Mechanics' Association, recently held in Boston, and also at the American Institute Fair in New York, for excellence of house heating apparatus. It will be remembered that the Gurney heater is especially designed for heating private dwellings, offices, public buildings, conservatories, etc., by hot water circulation. The fact that this heater has made such rapid strides to the front speaks volumes for its popularity and utility, and all interested in building are recommended to procure one of the company's illustrated catalogues.

THE St. Louis Hydraulic-Press Brick Company have just issued a handsome illuminated catalogue for 1888, fourteen pages of which are devoted to illustrations of molded headers, returns and stretchers, and nine pages to details showing fronts, arches, cornices, piers, mullions, oriel windows, etc., taken from constructed work of several prominent architects utilizing the company's manufacture. The catalogue is introduced by the reproduction of an extensive description of the company's works, which appeared originally in the Supplement of THE INLAND ARCHITECT of January 1, 1887, embellished with ten notable buildings, in which the company's product was largely used, namely: The Insurance Exchange building, First National Bank building, Montauk block, Illinois Bank building, Calumet building, Pullman office building, Commercial Bank building, Phenix Insurance building, all of Chicago; and Ryan's Hotel building, of St. Paul, and West's Hotel, Minneapolis. The *finale* of the catalogue comprises seven photogravure plates, showing the six different plants of the company in St. Louis, and one giving an interior view showing a mammoth press at work making molded brick. It is one of the most complete and elegant catalogues issued this year by brick manufacturers, and aside from its utility in aiding the selection and ordering of pressed and molded brick, its typographical and pictorial features makes it worthy of a place in the library of every architect.

THE Girard building, Nos. 298 to 306 Dearborn street, the property of J. T. Dale and S. E. Hart, which was destroyed by fire in January last, has been rebuilt according to plans and under superintendence of Thos. Hawkes, architect, and has been entirely remodeled, fireproofed throughout; all columns, girders, beams and posts are protected by porous, hollow tile, and the ceilings fireproofed with wire lathing on iron furring. The floors will be laid with asphalt; the ends of girders resting on walls are carried in iron shoes so that they could, in the event of fire, fall out or be removed without affecting the walls; these beams are also anchored through to face of wall, making the new construction additionally strong, while the old work retained has been materially strengthened and improved in many respects. There will be rapid elevator service, also freight elevators. The building is being rapidly pushed to completion, and will be ready for occupation by May 1, when the Western Bank Note and Engraving Company take possession of the third, fourth and fifth and part of seventh floors, with their office on the second floor. The Dearborn street front is treated in an original manner, being arched on the fifth and sixth stories. Two bay windows running up the sixth story, made of iron, brick and terra-cotta, add to the effect. The stone-course at the top of seventh story, forming window caps, is very solid. The materials used for front are St. Louis pressed brick and ornamental panels of same, terra-cotta, raindrop of Marquette stone, the entire front presenting a handsome appearance. The building has good plumbing and ventilation, well-lighted staircases and halls, and plenty of steam power, and will, no doubt, speedily fill up with good tenants, and we welcome the improvement and wish good luck to the owners, who, having so speedily rebuilt after their disaster, are to be congratulated. They have named it the "Girard building."

THE Henry Dibblee Company, of Chicago, a concern that has held for years a leading position among the designers and dealers in mantels and grates, have made important changes in its officers and directors. The president is Charles H. Morse. Anson S. Hopkins, who, through his long connection with the house, has acquired an almost national acquaintance among architects and owners, and is universally popular as a business man, and for his artistic knowledge, is vice-president and general manager, and J. G. Sanborn is secretary and treasurer. The directors, like the officers, are well known in the business world, and include, with President Morse and Manager Hopkins, O. S. A. Sprague, C. T. Whitgreave, Henry Dibblee, A. C. Bartlett and Brayton Saltonstall. The showrooms of the concern, always tastefully arranged for the exhibition of everything pertaining to the hearth and its environments, are at present especially attractive. On either side of the long room devoted to wood mantels, each curtained off by itself, has an air of "choice exclusiveness," which is fully borne out by the exquisite designing they display. The first impression is that they are new, thoroughly new, and thoroughly good. In fact, there are a dozen or so designs that are so broad in their departure from all stereotyped forms that they give one that keen sense of pleasure that a thoroughly original and artistic work of art is sure to create. He is a brave designer, and an artist as well, who will abolish from a mantel all ornamentation but a few bits of most delicate carving, and instead of brackets and pendants, curves and columns, show the plain surface of the polished wood with no ornamentation but its own beauty, forming a door to a cabinet for curios or for books on each side of the mantel shelf. And still the designer has violated no principle of art, and shocks no sense of artistic worth by an incongruity. But these mantels cannot be described. Architects visit this showroom and go away convinced that it is safe to leave the designing of their mantels in the hands of Mr. Hopkins, and his assistants, whenever the rush of other work will not allow sufficient study to be given to this important branch of interior finish by the office force. Being the western agents for Low's tiles, and dealers in all that is best and latest in fireplace furnishings, aids this company to give to the architects of the West the best in their line that the art and industry of the country can produce.

Railroad Notes.

THE first fishing party to the popular resorts on the lakes near Antioch, Ill., on the line of the Wisconsin Central Railway, reports the sport exceptionally good. The ice left the lakes ten days since.

THE Wisconsin Central Railway, in connection with the Northern Pacific Railroad and other lines, have arranged for a series of excursions to the principal land points in Minnesota and Dakota, at the rate of one fare for the round trip. These excursions will start on Tuesdays, fortnightly, beginning with March 20 and continuing until June 19.

THE Missouri Pacific Railway and Iron Mountain Route will run semi-monthly excursions to Texas and Arkansas on the following dates: April 4 and 25, May 9 and 23, and June 6, at one fare for the round trip. These tickets will be sold to all points in Arkansas and Texas, and will be good for sixty days for return trip, and fifteen days will be allowed for passage in each direction, with stop-over privileges.

THE Missouri Pacific Railway will also run low-rate excursions to all points in Kansas and Nebraska, forty miles west and south of Missouri river points, at one fare for the round trip, on the following dates, namely, April 3, 4, 24 and 25; May 8, 9, 22 and 23, and June 5, 6, 19 and 20. These tickets are good for thirty days, and ample stop-over privileges are allowed. Ticket offices, 102 North Fourth street and Union Depot, St. Louis.

POPULAR excursions have been inaugurated by the "Monon Route," Louisville, New Albany and Chicago Railway to the South, taking in most of the southern cities, to Tampa, Florida. The rate for the round trip is the regular rate one way. These half-rate excursions are made upon fully equipped Pullman cars, and occur April 9 and 23, tickets being good for thirty days. Information and tickets may be obtained at the city ticket office 73 Clark street, at any of the hotels and the depot.

THE hunting and fishing season has commenced, and the favorite sporting resorts along the Wisconsin Central are crowded with visitors. To accommodate this traffic the summer tourist rates will go into effect April 15. The round-trip rate to Cedar Lake will be $2.00; to and from Fox Lake, including stage and steamer tickets, $3.00. Ten-ride round trip books to Fox Lake will also be issued at $14. A similar low rate will also be made to Antioch, which is soon to become the most popular resort in Lake county.

Trade and Building Prospects.

OFFICE OF THE INLAND ARCHITECT, April 10, 1888.

The characteristic of manufacturing, building and commercial activity at this time is conservatism. This is the natural outcome of influences which have been converging for the past two years. The spirit of organization seems to permeate every interest, and in that growth or expansion lies the power to control, restrict and direct the energies on all sides. There is an underlying apprehension in business circles that there is danger of overdoing. Hence everywhere is seen organization and restriction. Already the effect of this is seen in steady and even firm prices in several lines of production. The spread of organization has accomplished much good in enlightening producers as to the extent of markets to be supplied, and the extent and capacity of the facilities existing for that purpose. Depressions have in times past overtaken the country, because there seemed to be no power in society, or in the world of business, to control and direct or conserve its own power and energy. Production once set in force has, in times past, run its course until the climax of expansion was reached. So of speculation. So of financial stringency and also of credits. Enterprise blindfolded herself and rushed forward, refusing to see or hear, and the end was the gorging of the channels of production, the lowering of prices, the obstruction of trade, and the virtual destruction of industries, and a general and sweeping transfer of values from debtor to creditor. Business, production, money, exchange, and all the great agencies and activities are now better understood and under better control, and hence panics are less probable. The increase in the volume of money, and its distribution in reproductive channels all over the country, saves us from evils that but for this distribution would ensue. In short, the people are guarded against evils and accidents as they never were before.

The indications at this time are that capital will as eagerly seek investment this year as last, that speculation has gained some advantages through the combinations of capital it did not have a year ago, that the expansion of productive capacity in mills, factories and shops will be made with greater care than during the past year or two; that the present downward tendency in prices in several branches of trade will not cause a further restriction of production, and that the demand for homes, offices, buildings, churches, schools, and construction work in general, will not fall below the limit reached last year. In some lines there will be a falling off; but new work, especially of an engineering kind, will increase, and compensate for deficiencies in other directions. Railroad companies will expend fully as much money this year in bridges, roadbed, locomotives, cars, stations and extensions, and shop equipments. Fully as many small houses will be erected this year throughout the United States. Manufacturing capacity in general will not be enlarged to the extent it was last year. Iron and steel makers have less to do, and a restriction of output is now in progress west and east. The southern iron interests have not yet felt this influence. Coal production will be kept at its full limit. Hardware manufacturing interests will continue to prosper. Wood-working machinery makers will have about as much to do. Lumber manufacturers are intending to market as full a product as last year, and count on strong and steady prices. Manufacturers of house-building material, of almost every kind, have contracts in hand that point to the possibility of steady work throughout the season. There will be a minimum of labor agitation. Our advices from New England show that last year's conditions will be repeated. The industrial activity there is directly reflected in building activity. Throughout the intervening states there is general activity in building and manufacturing enterprise. Investors feel the necessity of caution, but they recognize that the limit of safety in building activity has not yet been reached. The West and the South are creating requirements at a rate that assures steady activity in all industries contributing to development and progress in those great regions. With an abundance of money, and the maintenance of a healthy competition between all related interests, there is no room for fears of depression or of overproduction, or of an inability on the part of the masses of the people to continue the enormous consumptive demand which has placed our business and manufacturing interests on such a stable foundation.

Synopsis of Building News.

Alma, Wis.—Architects Edward V. Koch & Co., of Milwaukee, have prepared plans for Buffalo county for a brick court house, to cost $20,000; contracts will be let April 16, 1888; Ed. H. Wailty, county clerk.

Americus, Ga.—Architects Bruce & Morgan, of Atlanta: For Baptist Society, frame church building, 45 by 75 feet; cost about $10,000.

Atlanta, Ga.—Architects Bruce & Morgan: For David Meyer, block of tenements, 75 by 84 feet; cost $15,000.

Ashland, Wis.—Among the contemplated improvements is the erection of the Ellis Opera House, to cost about $60,000. The Ashland National Bank will build a three-story brick block, to cost about $50,000. Thomas Bardon and W. M. Tompkins intend building large business blocks this season. E. A. Shores will build a residence to cost $35,000. E. C. Smith will build a three-story brick block, 25 by 75 feet, Milwaukee brick, brownstone trimmings; cost about $10,000. Both the Hotel Chequamegon and the Colby House will undergo remodeling and refitting at an early date.

Bay City, Mich.—Present outlook very fair.

Architect D. P. Clark reports: For F. E. Bradley, two-story frame barn, 50 by 32 feet; cost $2,500. For Flynn & Mosher, seven one and one-half story cottages; cost $5,250; under way; also remodeling several frame residences at a cost of $1,200 to $2,000 each; projected.

Breda, Iowa.—Architect Schnell, of Rock Island, Ill.: For Catholic Society, brick church building, 100 by 60 feet; cost $14,600; work to be commenced at once.

Butler, Mo.—Architect A. B. Cross, of Kansas City: For Butler National Bank, three-story brick, stone and terra-cotta bank building; cost $25,000.

Cassville, Wis.—Architect F. D. Hyde, of Dubuque, Iowa, reports: For John A. Kundt, two story brick residence, 32 by 42 feet; slate roof; cost $3,500; plans under way.

Charleston, Ill.—Architect W. W. Boyington, of Chicago: For J. H. Johnston, business block, to cost about $20,000; plans under way.

Chicago, Ill.—The building season has seemed rather backward as far as actual work is concerned. This is not due to any lack of business in projected work among the architects, but largely because of a certain amount of nervousness among architects and owners in regard to possible building strikes, the experience of the past two years making this quite natural; but as far as the closest observation and a thorough knowledge of the elements involved and present condition of the trades can show, this danger is purely imaginary. The painters have tried to make trouble by an abortive attempt to force an unjust standard of wages upon the employers, but have gained nothing but the loss of what little work has been started, there being a large surplus of unemployed painters to fill the present demand. The main cause of apprehension has come from the carpenters, or those who claim to represent them. These two or three agitators, with which the city has been cursed, and by whom the carpenters have been misled and damaged in the past, still try the old plan of agitation, but this year with little success. The best men have been employed all winter at wages satisfactory to themselves, and while no rate is established, fair mechanics are in such demand that there is little chance for dissatisfaction. This and the determination of the carpenter contractors to pay good wages to good men, and manage their own business in their own way, which is a strong and unanimous feeling among them, leads us to state that this will be a year of uninterrupted work. There will be no "boom" in building, but the contractors can be sure of a fair amount of business, and safely figure upon it being carried out without serious interruption from strikes. In fact, as one prominent contractor expressed it, "Strikes are a chestnut."

Architect William W. Clay: For E. F. Daniels, brick and stone residence, hardwood finish; cost $20,000. For S. W. Lamson, two-story and attic and basement, brick residence, 34 by 60 feet; cost $15,000. For J. J. Maloney, two-story stone-front flat building, 25 by 70 feet; cost $6,000. For E. H. Turner, two-story and attic and basement residence, 30 by 60 feet; cost $12,000. For J. H. Baker, alterations; cost $5,000.

Architects Cobb & Frost have prepared plans for remodeling a block of five three-story and basement residences, 125 by 50 feet, into an apartment house, at a cost of $30,000. For the W. S. Johnson estate, two-story store, 54 by 64 feet; cost $7,000.

Architects Flanders & Zimmerman: For John Berry, one-story iron and glass stores, 100 by 75 feet; cost $10,000.

Architects Wilson, Marble & Lamsen: For J. W. Ferwald, two-story store and flats, 25 by 62 feet; cost $4,200. For I. S. Smith, two-story and basement residence, 24 by 55 feet; cost $6,000. For A. Delfosse, three two-story brick dwellings, 67 by 50 feet; cost $14,000. For E. Fourneau, two-story brick addition; cost $3,500.

Architects Treat & Foltz: For William Chalmers, two-story and basement frame residence; cost $12,000. For G. W. Taylor, two-story frame dwelling, 22 by 70 feet; cost $4,000.

Architects Starbuck & Ackermann: For J. C. O'Connor, three-story brick and stone stores and flats, 40 by 40 feet; cost $10,000. For F. Sawyer, stone-front store building, to cost $10,000.

Architect R. G. Pentecost: For T. J. Leonard, three-story brick and stone stores and flats, 65 by 65 feet; cost $15,000.

Architect Jno. F. Warner: For Beckwith & Fleming, two-story brick, stone and terra-cotta flats, 75 by 84 feet; cost $18,000. For Mrs. E. J. Sheridan, two-story stone front residence, 33 by 60 feet; cost $10,000.

Architects Ostling Bros.: For P. J. Hawkinson, three-story brick and stone flats, 23 by 72 feet; cost $12,000. For H. H. Bischoff, two-story brick and stone flats, 48 by 54 feet; cost $8,000. For C. Olson, three-story flats, 24 by 60 feet; cost $7,000.

Architect C. A. Weary: For Mrs. Prettyman, two two-story brick and stone dwellings, 44 by 66 feet; cost $12,000.

Architect S. M. Randolph: For the United States Transfer Co., two-story brick warehouse; cost $10,000.

Architect J. F. Doerr; For R. Schmidt, two three-story brick and stone dwellings, 32 by 60 feet; cost $12,000.

Architects Bauer & Hill: For Thomas Burke, three-story flat building, 24 by 88 feet; cost $12,000.

Architect Fred Aldschlager: For Baptist Society, stone front church building, 65 by 90 feet, Paulina and Superior streets; tower 125 feet high; cost $30,000.

Architect John Otter: For Louis Olcese, four-story and basement flat building, 25 by 43 feet; pressed brick and stone; cost $8,000. Also has plans for a two-story frame hotel, 100 by 100 feet, to cost about $10,000.

Architects Schaub & Berlin: For Charles Byer, two-story and basement residence; cost $4,000. For E. Beyghe, two-story and basement flat building; cost $5,000.

Architect W. A. Arnold has plans for the brick and stone M. E. church, 62 by 95 feet, to be erected on West Jackson street, at a cost of $22,000.

Architect A. J. Thain: For M. Deucer, four-story brick factory building, 60 by 125 feet; cost $20,000. For B. F. Paine, residence, 28 by 45 feet; cost $5,000.

Architect Julius Speyer: For J. Frolich, three-story and basement laundry building, 50 by 92 feet; cost $20,000. For S. Carey, three-story store and flats, 25 by 60 feet; cost $7,000.

Architect Wm. Longhurst: For Charles Wilson, two-story store and flats, 24 by 50 feet; cost $4,000.

Cincinnati, Ohio.—Reported by Mr. Lawrence Mendenhall: There is absolutely nothing to report in regard to trade notes, consequently there is no use of spinning the yarn until it breaks and spoils the knitting. On the 31st of this month (March), the Centennial Exposition Buildings will be dedicated. The contractors have made $100 per day by their promptness in turning over the immense structures sixty days before the time specified in contract.

The report of Building Inspector Forbush for the month is very satisfactory, there having been 116 permits issued to the value of $216,483, which netted the city $438.90. Our new building law has come to stay, and is really becoming popular.

S. S. Godley, formerly with the Syenite Granite Co., has opened an office in the Mitchell building, and as virtue has its own reward, we can safely promise him a good business.

Architect Thornton Fitzhugh, who has succeeded to the business conducted by Forbush & Green, has his time well employed and reports the following: For Geo. Fox, Esq., a picturesque frame house of eight rooms, pine finish, shingle roof; cost $4,000. College building at Oxford, Ohio, to be built of brick, four stories high; will contain libraries, dormitories, hall, music rooms, etc., and laundry in the basement; size 50 by 60; cost $10,000. For D. V. Walker, Wichita, Kansas, a house the same as the one first described. Prospects very bright.

Architects Samuel Hannaford & Sons report the following: Remodeling building for B. & O. Express, into a first-class office building, adding two stories, elevators and all modern improvements. For Thos. L. Griffith, a brick and frame shingled house of ten rooms, pine finish and slate roof. For Mrs. Mary A. Wolf, a pressed brick house of twelve rooms, pine finish and tin roof. For Miss Agnes A. Collier, Avondale, Ohio, a frame house of eight rooms. This house is quite artistic and a cheap house for the money.

Architect S. E. Des Jardins has the following plans on his boards for the persons named: Miss Mollie Williams will build two double frame houses, two and a half stories high, ten rooms each, pine finish, slate roof; cost $15,000; contracts let. Charles F. Louden will build a residence of the following description: pressed brick and brownstone in first story, frame covered with tiling in second story, hardwood finish and slate roof; the house will contain about twelve rooms, and cost $12,000. For Mr. Wm. Hillebrand, a double pressed brick house of sixteen rooms; the house will be finished in pine, with slate roof; cost $10,000. J. H. Steggeman, of Newport, Ky., will build a frame residence of twelve rooms, slate roof, hardwood finish, and to cost $12,000. Mr. Des Jardins is improving decidedly in his treatment of house plans, and is acquiring a bold and original style that is bringing him increased business.

Architects Buddemeyer, Plympton & Trowbridge: The artistic feeling which is preëminently shown in all of the buildings, especially country residences, has brought this firm their full share of work. They have the knack of giving a good deal for a little money. Under their plans the following houses will be built for the parties named: Peter G. Thomson will build four houses, each half timber and frame, containing eight rooms each, with slate roof. Mrs. P. G. Thomson will build a residence of eleven rooms, entirely of half timber work, with slate roof; all of these at College Hill, Ohio. T. W. Keeveney, row of six brick houses, three stories high, each containing twelve rooms, with tin roof. Miss Anna J. Lynch, residence of nine rooms, of half timber work, and shingle roof. F. M. Joyce, residence of nine rooms, half timber and slate roof.

Edward Johnson, residence of ten rooms, half timber work, with gambrel roof, etc. Henry Becker, brick store, three stories, with iron front and tin roof; size, 15 by 48 feet.

Denver, Col.—Architect Fred A. Hale: For Rev. E. H. Kriege, residence, to cost $4,000; L. M. Bilter, contractor.

Architects Wilson & Robinson have let the contract for the erection of a residence for Mrs. Z. Shed, to cost $4,775; J. S. Buell, contractor.

Architect O. Bullow: For *Republican* Publishing Co., remodeling offices and counting room. For W. H. Harvey, residence; 40 by 80 feet; cost $14,000; Hamilton & Harvey, stone contractors; C. J. Smith & Co., brick contractors. Also preparing plans for eight dwellings to be commenced soon as new brick can be had.

Architect Wm. Lang: For Messrs. Wilson, two two-story residences; cost $8,000. For H. C. Dillon, two-story brick residence, 28 by 50 feet, to cost $6,000. For Mrs. Gerish, two-story brick residence; cost about $4,500. For J. H. Clems, two brick and stone residences; cost about $4,500 each. The Sheridan Hotel, to be erected near the military Post, will cost about $15,000. For C. V. N. Kittredge, stone residence; cost about $10,000. For J. W. Hampton, pressed brick residence; cost about $7,000. Work has been resumed on brownstone residence of I. N. Large, which will cost about $25,000, when completed.

Architects Varian & Stemer: For A. T. Brasher, brick and stone residence, 33 by 56 feet; cost $10,000; Hamilton & Harvey, masons; Carpenter & Hamlin, carpenters. For P. L. Bockfinger, pressed brick and stone residence; cost $18,000. For the Overland Club, club house, 60 by 100 feet; to cost about $20,000. For C. H. Olmsted, two cottages; to cost $4,000 and $5,000. For D. C. Packard, residence, to cost $10,000; plans under way. For M. W. Gano, brick and stone residence; cost $4,000. For George Gano, brick and stained shingle residence; cost $4,000.

Architect D. McD Graham: For Fred Neef & Bro., four-story brick and stone business block, 75 by 125 feet; cost $80,000; under way; John Moutal & Co., contractors. For H. S. Waldo, two brick and stone buildings, 25 by 45 feet; cost $7,000; Lawson & Vaughan, contractors. For Gen. A. J. Sampson, two-story brick and stone dwelling, 23 by 50 feet; cost $4,500; Barnett & Trautman, contractors. Glen Park Hotel, three-story frame building, 50 by 100 feet; cost $15,000; projected. Montezuma Valley Hotel, three-story brick and stone building, 100 by 150 feet, cost $5,000; projected.

Architect R. S. Roeschlaub: For P. Gottesleben, a residence to cost $25,000; to be built of lava stone, trimmed with Las Vegas purple stone. Also has let the contract for the erection of the Hyde Park school building, 121 by 122 feet; brick and stone; cost $70,171.

Architect A. M. Stuckert: For G. E. Hannan, residence, to cost about $4,000.

Among the permits recently issued are the following: J. H. Richards, two-story brick dwelling, 32 by 64 feet, Sherman between Bayard and Ellsworth streets; cost $5,000. M. C. White, two-story brick dwelling, 21 by 50 feet, Jay between Twenty-first and Twenty-third streets; cost $4,000. G. Schwank, two-story brick dwelling, 22 by 50 feet, Tremont between Fourteenth and Fifteenth streets; cost $4,000. M. Finnerty, two-story brick building, 42 by 100 feet; cost $4,000. C. A. Wallace, two-story brick building, 33 by 50 feet, Eleventh between Larimer and Lawrence streets; cost $4,000.

Dubuque, Iowa.—Architect F. D. Hyde reports: For Rev. Father Fogarty, two-story brick residence, 22 by 48 feet; cost $3,000. Plans in preparation.

Florence, Col.—Architects Balcomb & Rice, of Denver, are preparing plans for McCandless & Robinson, for a two-story brick hotel building, 75 by 140 feet, to cost $25,000. For Senator McCandless, a residence, to cost $5,000.

Fredonia, Kan.—Architect A. B. Cross, of Kansas City, for First National Bank, three-story brick, stone and terra-cotta bank building; cost $25,000.

Garnavillo, Iowa.—Architect F. D. Hyde, of Dubuque, reports: For W. A. & M. F. Meger, one story brick store, 34 by 60 feet; cost $3,000. Plans in preparation.

Golden, Col.—Architects Varian & Stemer, of Denver. For Regis Chauvenet, president of the State School of Mines, pressed brick residence; cost about $7,000.

Greeley, Col.—Architect Fred A. Hale, of Denver, is preparing plans for H. N. Haynes, for a residence, to cost $6,000.

W. R. McClellan & Co., are about to erect brick and tile factory buildings.

Greenville, Mich.—Architect D. P. Clark, of Bay City. For the M. E. Society, brick and stone church building, 70 by 107 feet; cost $15,000. Taking figures.

Hiawatha, Kan.—Architect J. G. Haskell, of Topeka. For Hiawatha College Co., two story and basement and attic, stone veneered college building, 90 by 50 feet; cost $15,000. Contract let to W. R. Carter, of Lawrence, Kan. Work to commence at once, and building to be completed about September 1, 1888.

Independence, Mo.—Architect A. B. Cross, of Kansas City. For John Flourenoy, two-story brick and terra-cotta residence; cost $15,000.

Indianapolis, Ind.—The commissioners for the soldiers' and sailors' monument have advertised for bids for the contract to build the foundation for the monument. The bids will be opened May 1. The monument when completed will cost upward of $300,000.

Jasper, Ga.—Architects Bruce & Morgan, of Atlanta. For Perkins county, brick and stone court house, 64 by 84 feet; cost $15,000.

Kansas City, Mo.—Architect E. P. Brink has prepared plans for a block of houses, to be erected corner of Twenty-fourth and Chestnut streets.

Architect W. F. Hackney, has prepared plans for two brick and stone school buildings; cost $50,000.

Architect M. J. Scholer. For John Owens, brick, stone and terra-cotta building; cost $12,000.

Lake Geneva, Wis.—Architect A. Cudell, of Chicago, Illinois: For Conrad Seipp, two-story and basement and attic, stone and frame summer residence, 50 by 70 feet; cost $25,000.

Laramie City, Wyo.—Architect Fred A. Hale, of Denver, Colorado, is preparing plans for the Commercial Hotel Company, for a four-story hotel building, 97 by 133 feet, Buff sandstone front; cost about $80,000.

Lawrence, Kan.—Architect J. G. Haskell, of Topeka: For Merchants' National Bank, three-story brick and stone bank building, 25 by 117 feet; cost $15,000; contracts not let.

Lincoln, Neb.—Architect O. H. Placey: For the school board, two-story and basement, brick and stone school building, 70 by 68 feet; Grace & Kelly contractors, work to be commenced at once.

We are informed by Geo. L. Miller, manager, that the New York Life Insurance Company have not yet decided to erect a large office building as reported by some of our contemporaries.

Lloyd, Ill.—Architect Geo. H. Helmle, of Springfield. For C. W. Houghton, two-story frame dwelling, 32 by 50 feet; cost $3,000; under way. A. T. White & Bro., builders.

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